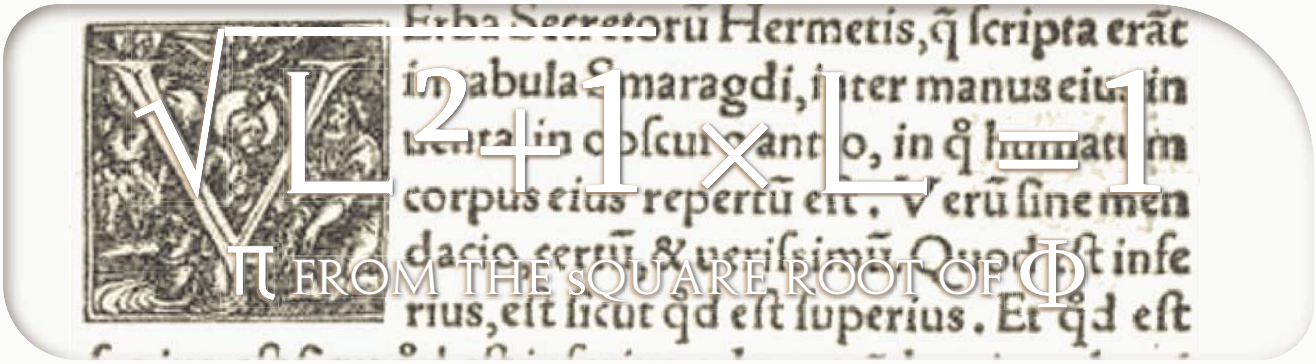
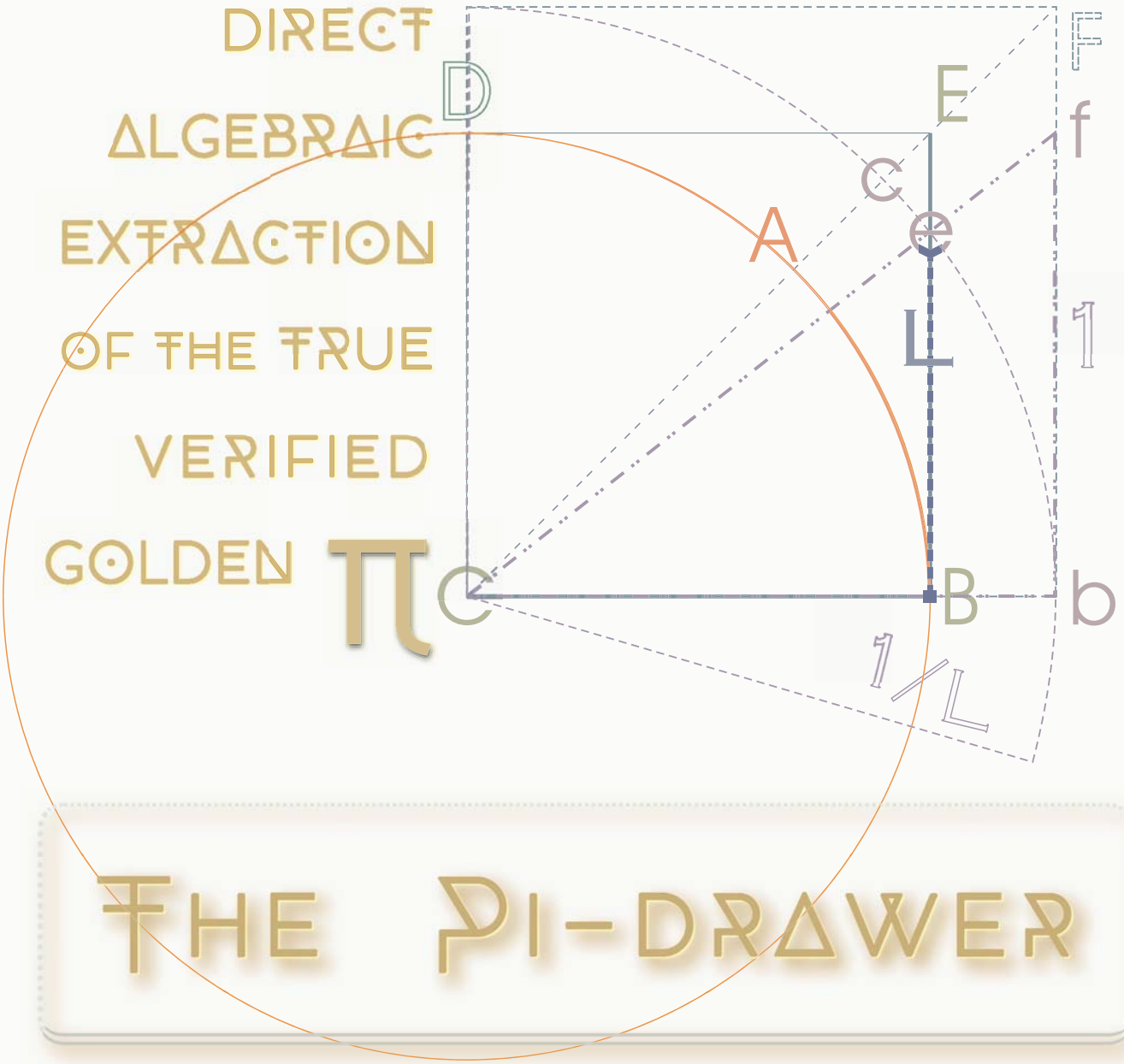


DIRECT ALGEBRAIC EXTRACTION OF THE TRUE VERIFIED GOLDEN π



THE PI-DRAWER

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Utterly planned and edited by Antonio Alessi

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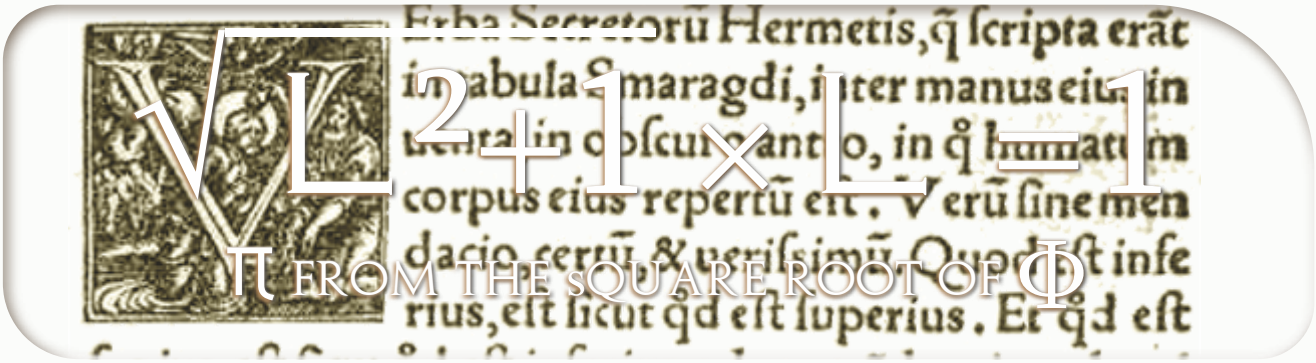

« “Smaragdina Hermetis Tabula” detail – by Johannes Petreius ed. “De alchemia” 1541 »

As with the Golden Section,
to 'uncover' π it came necessary
to compare it with the ONE

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ABSTRACT

This study aims to examine and expose not so much the history of the π but rather the reasons that have accompanied for thousands of years of attempts the impossibility of calculating the circle exactly, agreed today with a reliable compromise – as we will see with certainty – only up to hundredths.

After years of meditation, the author is finally proud to be able to offer to the U.S. House of Representatives and the UNESCO the ultimate celebration of Pi-day in the year of grace 2026, as the most coveted 'slice of pie' in the format of the real π, the natural constant without any limit of accuracy, being obtained by extraction directly from the circle and by simple algebraic means, ie an equation with radical coefficients, thanks to the geometric device called: 'the Pi-drawer', here expounded in full.

The transcendence of the circle

- We don't understand so much about the circle.

The very idea that it can be imagined as "a regular polygon with an infinite number of sides" is a subtle yet gross contradiction in terms, the first and last of the problem.

In fact, the number of sides, no matter how *infinite* one can visualize it, will always be made up of sides, that is, of chords of a circumscribed circle, never of arcs. Furthermore, this imaginative concept of infinity, freely invoked to justify everything and nothing, could only lead to an infinite number of points, to which the length of the sides would be reduced, or it would not be 'infinite' at all, which, however absurd, is the only hypothesis that can justify the *transmutation* into a circle. So much so that, at the limit of the wildest imagination, if the calculation were reduced to just three points, each of the three would have to be outside the angle of the other two, or it would give rise to a chord.

It's a bit like trying to superimpose that tournament toy brought in the fore by Fibonacci on the golden section; btw also each side could align infinite points.

But all this has nothing to do with reality, and if we stop feeding on these mirages of an unprepared mentality, there is much more to understand.

The only way to describe it correctly is that of 'a geometric expression in which every point of the perimeter or circumference, or of its spherical surface is equidistant from its center'.

Unlike all polygons on stage, the circle can be drawn only with a compass, while a ruler is needed for any regular polygon, which cannot be drawn without the aid of the circle. It expresses a direction operating behind the scenes, unapproachable in its sacred, metaphysical, or transcendent essence.

Encompassing all rhythms and frequencies, the Absolute is imprinted within it. It recollects the sphere in which the universe was concentrated at the time of the Big Bang,
In primis, its formation in matter can be seen as the expression of every gravitational field, and this study will calculate its beating heart.

We know that the circle has no beginning or end, defined only by its radius rotating around one end making it the center, and neither is visible.
The only way to define it is a Cartesian coordinate system whose point 0,0 is its origin.
The resulting quadripartition of the circle enhances right away its cyclical, spatial and temporal qualities in both a circular and undulatory sense; and this brings us to the square as its most direct descendant, a concept I have always insisted on; the same and only possible one defined by intersecting with a ruler and compass four equal, interactive circles proposed as a challenge since the beginning of my discussion, and which is equal to ¼ of each of them. This was also my 2021 access to squaring of the circke.

In this regard, I would like to add a few significant reflections regarding my phrase: all regular polygons descend from the circle, whose laws of balance and harmony they must respect. All, except the triangle, are generated within the circle to which they owe their perfection, which allows them to virtually recall it simply because they derive from it.
The opposite is true for the triangle, since any triangle, or combination of three points, however arranged, can generate a circle that passes through them. This brings the thought back to the Divine Triangle, thus discovered and defined by me, since it contains all the extremes of what we are examining, from Φ and φ to π. Unlike other polygons, an infinite number of triangular variants can be inscribed or circumscribed to the circle.

For this reason, as an author, I treat the square as the primary descendant of the circle in its manifestation (as well as the base of the golden rectangle and from it of the pentagon, even to the pyramidal triangle that introduces the squaring of the circle), and this study will offer all the extremes that validate it.

The four phases of the circle recur in every sphere: undulatory, astronomical, seasonal, spatial, and vital; together with the triangle, it forms the zodiac and the tetrahedron, the basis of DNA.
The metaphysical circle makes maximum use of the square, just think of the Compass Rose, while it has no need for polygons with an infinite number of data points for its potential manifestations, nor does Cosmic Consciousness need them to realize it.

On the other hand, no references to cyclical phases of the pentagon are observed, which rather affirms a certain priority in biology and living organisms, likely as the most representative and sought-after container of golden ratios between the spirals, surpassing in my research with its module of ⅖ [144° angle] the character of golden spiral attributed to the one that develops in 90° arcs (a demonstration barely good for elementary school, raised and exhibited at university level, with mathematical and geometric falsified models), while the number 5 reigns supreme, as we will see, in every remodelled formula of the scheme under examination.\

- We also know little about the π, except that it is supposed to regulate the measurements of the circle, for which reason, after centuries of variations in the history of mathematics, it was given a name and the best value of 3.14159 was agreed upon, deriving in any case from a simulation 0pushed to the extreme, therefore fictitious.

A less correct value, as we will see with certainty, than that reached by the Egyptians [with 22/7 = 3.1429], by Archimedes [3.1419], as well as the Chinese Zu Chongzhi (5th century AD) with a more abundant 355/113, the most relevant ones (I certainly won't make a historical list of them) – in addition to numerous mathematical series and sophisticated tricks by committed mathematicians who participated, even probabilistic methods, witnesses of a persistent dissatisfaction, but without ever reaching a definitive conclusion, not to mention Bill 246 on the rational Pi, to the point of remaining calcified in the current belief that the maximum degree of precision has been reached and, to break down the inevitable residue of uncertainty, *sanctify* the compromise with the suggestive anniversary of Pi-day with more decimals than confetti.

In all cases, what is affirmed is only the fruit of artificial formulations, precluding the natural squaring of the circle, which even transform it into a paradox, while the one I present here arises from the circle itself, and is the result of an objective, practicable and irrefutable graphic demonstration.

In fact, the historical approach is inadequate, alien to the circle, and almost in conflict with its nature, which is why the salvageable part stops at 3.14, already betrayed from the third decimal place onwards. Identifying π with ½ circle is nonsense, as well as with a whole circle, via τ (tau). π is an independent elementary constant, not some geometric figure. It is like a monad.

The age-old error

has been to pretend to conform to a semicircle surreal polygons which could self-elect π, if not formations capable of *freewheeling* emulating its characteristics, but not in harmony with the natural rhythms and the synergy of forms.

The concept is vital for anyone who is inclined to understand it and take it into account from an epistemological perspective: the transcendent or metaphysical cannot be reached starting from a physical foundation.

If anything, it is the opposite, since only the transcendent can translate into immanence, delimited by time and space, by beginning and end, but the process is not reversible. In essence, one cannot strive for the circle or definitively imprison its soul with any polygon, or through formulas external to it, but one must project oneself as a participant, from the circular motion toward the four directions of space, to begin with.

Proof of this is that up to now researchers have stumbled upon the same common limit, all sacrificing some 0.96‰, claimed by an elusive curvature.

The point is not the ±3.01 thousandths gap, which may be minimal, but also extremely significant at distances in kilometers when proportioned to its trillions of digits, but the mathematically aggressive and almost naive choice exercised in multiple ways, perhaps in accordance with human nature when in difficulty.

It lies in failing to give due weight to the rhythms of Creative Intelligence, some call it Chaos, where they are precisely π and Φ that established and maintained its order in the formation of the universe, before and after the Big Bang.

In the case in question, therefore, it is the failure to stand alongside and explore the natural and pre-eminent relationship between the circle and the square, which is its first expression.

Even the perspective based on the diameter isn't entirely appropriate, since the circle is defined by its radius, while the diameter is merely its derivation.

It represents the maximum width of the circle but doesn't shape it in any way; the diagonal of a square represents its maximum width as well, but no one uses it to define it.

I believe this choice has contributed to a deviation from the correct goal, fueling the aforementioned approach that distracts from the ¼ circle, which is truly what matters, its first gate. Furthermore, it prevents us from interpreting the importance and function of the π at a gravitational level – symbolized at least by a center and four spokes – and in accordance with the evolving space-time relations governed by the divine proportion, of which it is the root. In fact, only the **radius** can be considered the **unit of measurement of the circle**, just as the side is for the square, and in the demonstration that follows it turns out, as the dominant one, to be the true direct connecting bridge.

This concept needs to be gutted, as it is fundamental to the solution I have developed.

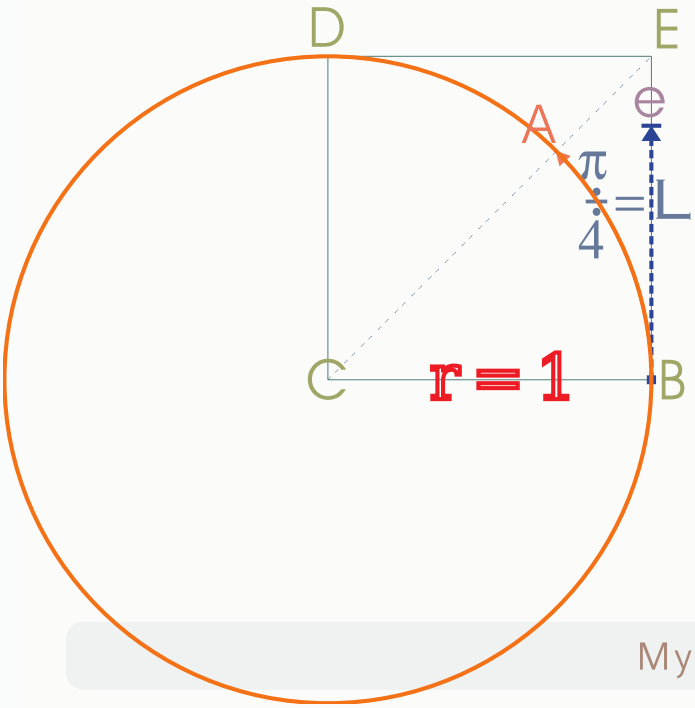
The Antidote

Rather than pretend that a surreal polygon can imitate the circle to the point of replacing it, I have come, with the leverage of my own previous articles on the intrinsic dynamics of geometric figures, to conceive and engineer the reverse maneuver; by deploying an artifice through which the circle itself expresses the integral π in the polygonal dimension, or so to speak projecting it, in the form consisting of a segment of the side of any square that is curving.
In short, let the circle crystallize the π that animates it from the center (and in each of its quarters with any radius), in a readable and measurable format.

Why focus on the radius

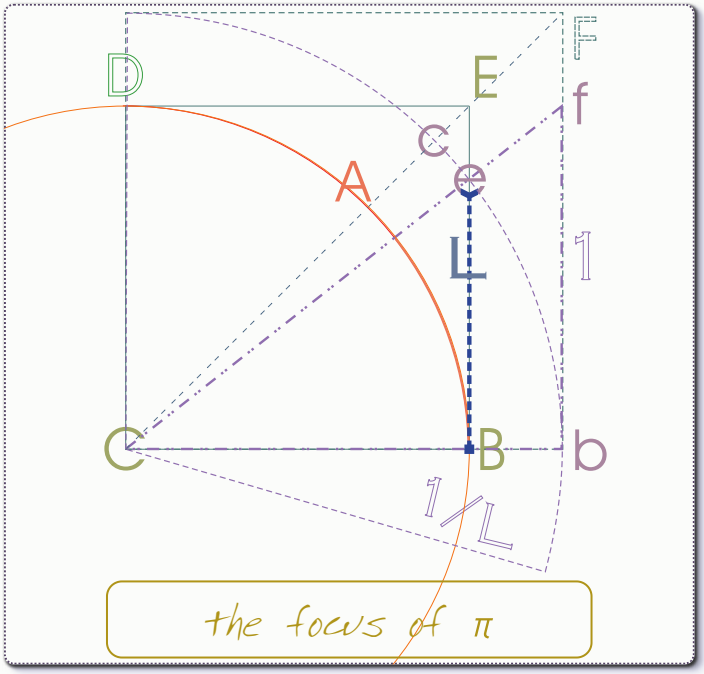
- While the diameter is a static and passive measurement, the radius is the dynamic side of the circle, as if in an unstoppable motion that renders it invisible, since, if stationary, it would mark the extremities of the circumference, both the beginning and the end, and a specific orientation, arguments incompatible with the nature of the circle. This recalls my 1st approach to the nature of circle. Therefore, the most suitable way to represent both is to indicate with four spokes, like those of a wheel, the cardinal directions.
- The radius is, in a certain sense, the circle's only link with *normal* geometric figures, or rather the bridge between its absolute curvature and any regular polygonal construction. Besides, it can set a circular motion direction.
- On the radius, it is natural to construct a square with equal sides, which therefore circumscribes each quadrant of the circle itself.
- The relationship between its circular function and its square or quadratic one is such that the arc it describes inside the square represents the curvature of two of its sides, to make it easier to see let's say *that contain it*, regulated by ¼π, as well as the reduction to a circle of its area.
- It will then be convenient to reduce to the single radius as a unit of measurement, both a single side and half of the arc – which facilitates our calculation since the other side is symmetrical to it and taking it into account would not add anything – in order to be able to consider said portion of the circumference which is ⅛ of a circle in turn as a unit of circular measurement, in direct relation to the sides of the square, 8 of which circumscribe the circle constituting the static projection that we propose to compare.
- Having thus simplified the testing ground, all that remains is to compare the side radius with its curvature, whose coefficient will be our unknown.
  In short and *in lowest terms:* $\overset{\frown}{AB} = ¼\pi\, BE$.

A window on the circle



The diagram that arises spontaneously, on a Cartesian system with center C, with CBED frames a quarter of a unit circle $\overset{\frown}{CBD}$ and wants to rectify with the Be trait the unknown L [*I name it "Platinum"*] , whose value is hypothetically the coefficient of curvature of the unit side BE in the arc $\overset{\frown}{AB}$, which, having radius =1, results in a length equal to L, that is ¼π.

My Pi-drawer's birth, or a 1st sketch



The function of this device – not obtainable a priori with ruler and compass, but precisely drawn once the algebraic calculation is finished (after Lindemann's assumption it is already a great step forward) – was to sight the focal length L as if by an optical instrument with two lenses, one of which in counterpoint on the transparent side BE, sublimating their convergence into a single formula.

•The first natural lens is the triangle CBe, with all the extremes of the case.

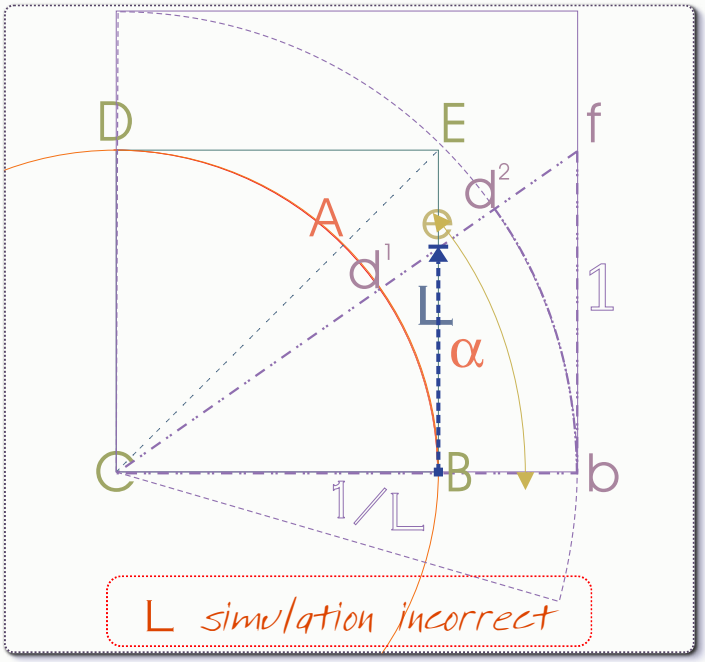
• The second lens is obtained increasing the 1st, the triangle CBe, from the C vertex, until Be [L] has reached a prefixed length=1 as a cathetus bf, which will have to occur by the inverse proportion 1/L, certifying it in turn as a *straight-line conversion factor* of the potential side bF (= Cb) to the arc $\overset{\frown}{bc}$, proportional to $\overset{\frown}{AB}$ and, for the ratio ¼π, in turn with length =1. In this scheme – which I leave to be retraced first by the reader who wishes to try his hand at its seductive characteristics – despite the satisfactory graphic correspondence, only unchanged precision can guarantee that the presupposed terms truly coincide, so that Ce ≈ Cb, and this is not the case of the π 3.1416 although adopted as correct. In fact to the arc $\overset{\frown}{eb}$, drawn by the hypotenuse Ce, or better yet to the scaling 1/L of the arc $\overset{\frown}{AB}$ which becomes $\overset{\frown}{bc}$, it will

have to overlap the arc ⌒be, generated by the base Cb of the new triangle; just to give an intuitive description of how projections of π inside and outside the circle must collimate.

Thus, the π can be glimpsed even if blurred, while on the horizon of the diameter there would appear only a double series of inscribed and circumscribed polygons crushing against each other, tending towards an 'infinity' that they will never reach, since their 'infinity' lies precisely in the unfathomable depth of that circle devoid of definition other than of its radius vector (and of real π).

Reductio ad absurdum

There would be no need to resort to a negative demonstration, however it will be useful to clearly expose the anomaly that takes shape with a value of ∟ lower than the true one. Very low in this example, not to exaggerate the effect, but to improve the readability of the diagram.
Giving ∟ [Be] the current value of ¼π = 0.78539 instead of 0.78615, it wouldn't even let you see the difference; but the difference is there, and it is substantial; I will give precise proof of this in the paragraph "appearances can be deceiving", which this graph will help you read, as it is free of notations.
A length of ∟ less would make such equivalence of a specular reflection from bf impossible. since it lengthens Cb and shortens Ce, altering the proportions of the arcs between them due to measurements deriving from presumed but invalid modules of the π, giving rise to a sort of *astigmatism*.
In the figure it can be easily seen that the semi-arc of the new square, at approximately ⌒bE, is considerably larger than bf, which excludes that bf can correspond to the curvature coefficient in 1/∟ scale.



Starting from a length certainly shorter than Be, like that of the string AB, in figure Bd¹ deliberately much lower than the presumed Be i.e. ∟ to ensure the readability of the graph, but which could also be 3.1416 /4 with the effect of making the figure perfect at this illustrative level, it is easy to visualize a process parallel but inverse to the one applied for millennia, progressively raising the point e to bring the two arcs, ⌒Bd² and ⌒Bd¹ closer together, until they coincide at ⌒be. We have already established that this is possible.

However, in this case there is no need for complex algorithms, since here we are not under the illusion of making two increasingly pincer-shaped segments above and below a section of the curve correspond to the curve itself – a bizarre claim to deceive the "infinitesimal", given that however small (in the imaginary), a segment will always remain a segment and a curve a curve.
Here we only try to calculate the exact measurement that makes the two arcs equalized by the same given ratio (ideally ¼π,) to overlap; something that can be directly solved by prefixing the geometrically expected result in an equation with only the aforementioned unknown; which will even be reproducible a posteriori with a ruler and compass, without any approximation.

The impeccable formula

Given and acquired this, we can conceive the equality of Ce to Cb symbolically distinct for both *lenses,* to the left of the attribution of L for the intelligence of Pythagoras applied to the triangle CeB, in the form: $\sqrt{L^2 + 1^2}$; and to his right (forwarded to the triangle CbF) as $1/L$, in order to extract the only possible value from L [$\sin(\overset{\frown}{be}) = \tan(\overset{\frown}{AB})$] which generates and maintains it for any radius. And here is the real π in focus, on the notes of this score –

music of the spheres:

$$\sqrt{L^2 + 1} \times L = 1$$

So, $Ce = 1/L$, or $L = 1/Ce$, that we couldn't know that before performing the calculation, mean that, if L reduces a square to its inscribed circle, $1/L$ *converts* the circle to its circumscribed square. By interfacing their projection we brought out the ¼π, and this is: L = 0.786151377757423286069558 58
in practice the real 'module' ⅛ of circle, to be multiplied ×4 for the current use of the **π = 3.14460**. This looks to suggest that the figure to define π should be considered right this L as the direct minimum converter of the unitary radius itself, alike the basic unit for [¼ of] a circle and the squares binding its phases.

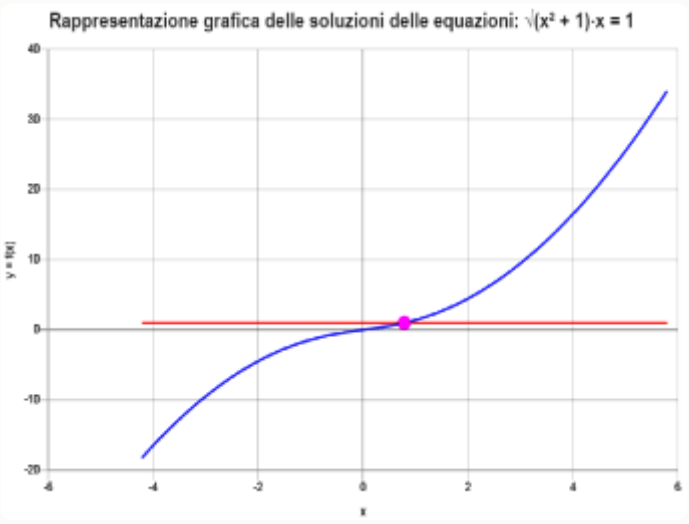
For a respectful semantics, the most appropriate form **8Lr** to calculate the circumference, and **4Lr²** for the area of circle, points out more directly the fundamental geometric relations with the unit of measurement; whereas the formulas derived from the diameter remain a bit deviant in comparison, after all it cannot trace a circle, being defined only by its extremes, not by a center.

Representing the circle's area as **πr²**, simply means that **3.14** is the reduced area of the circumscribed square that is **4**. Declaring for the same radius, which we are referring to, **2πr** as the circumference = **6.28** it's not as elegant and coherent. Circle should be framed by its square and sectional by radius.

I entrusted the development of the equation to a valid online calculator, it was not my task; nevertheless, in the development of this complex formula, it almost seems to me that it has stumbled upon 4 solutions, somehow 'auxiliary', characterized only by alternating ± signs that it seems unable to interpret, but which immediately make me think of the coordinates of the 4 quadrants.of the circle.

Real Solutions

The given equation has been found to have both complex and real solutions. The real solution identified is $x = \frac{1}{\sqrt{\frac{1}{2}\sqrt{5}+\frac{1}{2}}}$. The input was: "\sqrt{\left(x^2\right)+1}\times x=1"



I saved in PDF the calculation of mathcracker.com/it/calcolatore-equazioni. It includes comments in English interspersed with clarifications in Italian, but it's the calculation that counts. I reproduce its result in figures and a graph, which clearly shows how the coordinates of the two arcs diverge drastically if the length L is incorrect.

inally, the formula is perfect and absolute: an equation with one irrational but not transcendental coefficient!
After centuries of painstaking research,
we find ourselves faced with the **unique real index of π.**
Everything else is water under the bridge.

In the end, it wouldn't have taken so much calculation effort, just check, by substituting the unknown, if and which of the few variables already known satisfied the calculation, especially ¼3.14159 or ¼3.14460.
It is worth adding that even without tackling the algebraic solution, it would be enough to increment each decimal place of the lower 0.785398... by the maximum unit from 0 to 9 that keeps it < 1, to obtain an exact result for the desired precision deemed necessary for scientific use and allowed by the software.
Nonetheless, it is extremely spellbinding to observe how the solution identified in its final notation, when looked at closely, proposes the very formula of the Golden Section, something that I have highlighted since my first steps, as the close and natural relationship between π and Φ, for which the final formula could be reversed into the more widespread one: $\sqrt{(\sqrt{5}-1)/2}$ i.e. $\sqrt{\Phi}$. What matters, while L rules each quarter circle; its square activates Φ

Anyone who has studied my articles, which over the course of four years of research have paved the way to this point, won't be surprised to discover that the unique solution to this equation, more complex than I could have supposed, passing through a 4^{th} degree polynomial, can be reproduced with the digit 5 in the form: $1 / \sqrt{0.5 \times \sqrt{5} + 0.5}$ and in terms familiar to us:

$1 / \sqrt{1.61803399}$ or to simplify: $\sqrt{\Phi}$, that is 0,7861513777... Q.E.D.

This recurrence of the number 5 truly recalls with the rhythm of the deepest harmony the model of the musical score, traditionally based on 5 parallel lines on which the notes dance.

It is evident that this result makes superfluous all the research and suppositions connected to the number of decimals and what they could ever reveal, since as for the true power of the π we would not gain any advantage by knowing its interminable tail, but rather the harmonic laws that it expresses and of which it is the cornerstone, together with the golden section, and which I had recently and again summarized in the addendum of December 2025

If no one worries about the myriad decimals belonging to the Φ, it's precisely because they're focusing instead on what each of its expressions represents in creation, attributable to the divine, letting the decimals carry out their work of perfection *undisturbed*.

The same goes for the π, which from now on we will be able to contextualize properly, as part of the golden ratio. Decimals were nothing but the illusion of getting closer, assigning compelling realism to the former factitious constant.

As should emerge from the actual discovery, π is much more than geometric.

The window to the unknown

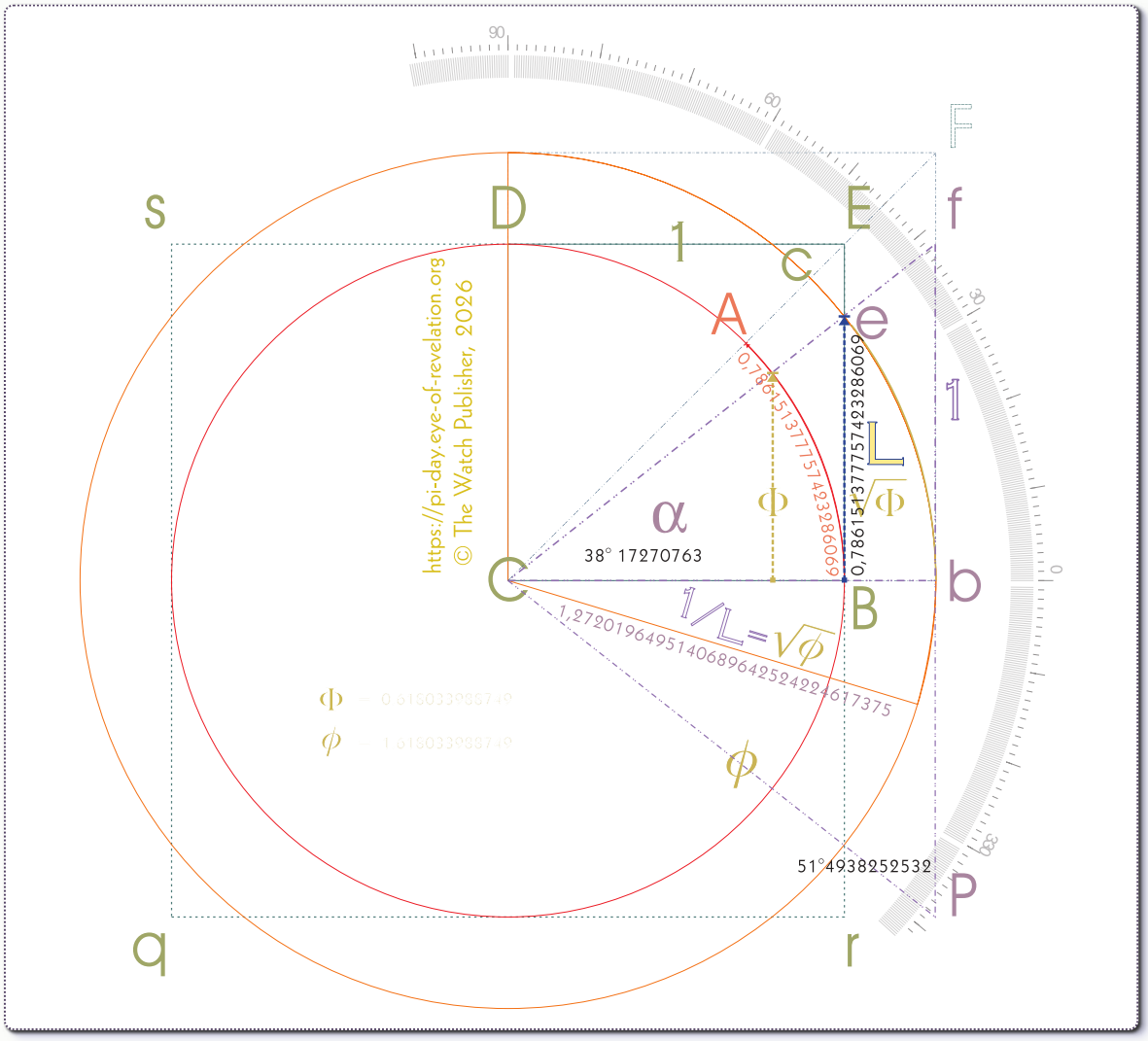
For days and quite a few sleepless nights, it was like wandering through a mirrored maze, in which the π placed in front of itself in a geometric key had to let itself be recognized, proving true for all the exact correspondences, but precisely for this reason without helping me to quickly define an entrance and an exit. Typical of the circular motion.

I only now realize, in compiling the complete table of information, that I have developed a Quadrature of the Circle, from which we can deduce the π that generates it. In fact, the second circumference of which we have considered the semi-arc $\overset{\frown}{cb} = 1$ has length 8 like the square Esqr (see below).

It also includes the vertical section profile of the Great Pyramid of Giza, which I first referred to as the Great Golden Triangle, and finally as the Divine Triangle, having discovered its supreme properties, far superior to those of any other polygon. See also this 2009 excerpt of my rejected Wikipedia approach

As can be seen from the topics covered, the triangle CbF represents half of it (with ½ base bF), complete in the graph at the extreme P, with the angle 51°49 reported by Herodotus, as well as the data that its height Cb would have been the radius of a circumference equivalent to the perimeter of the pyramid's base. A fact highlighted by the great scholar Piazzi Smyth, who in his 1864 treatise «THE GREAT PYRAMID» had already come closer than anyone else to confirming all this and to the most precise value of the π through the most careful measurements.

Of course, over time no side is yet the same as another; furthermore the Great Pyramid actually *dissimulates* 8 sides, due to subtle concave indentations along each of its faces; does this hide some parallels to my choices of module ⅛ ? Look what the Pi-drawer gifted us, like an explosion of synergy:



The complete ¼π drawer: $\sqrt{L^2+1} \times L = 1$

It's Kepler's triangle! someone will immediately exclaim; but as I wrote somewhere on the site, Kepler had only intuited half the truth, the whole of which is precisely that great Triangle that appeared to me in 2002, due to the first extraordinary properties of the four golden circles that in a certain way compose it; and in any case, hadn't gotten this far.

I cannot say that I started from that triangle also for this independent construction, but in fact I **fell back into it,** as if it were its hidden matrix. A verification that should at least convince us that the creators of this 7th wonder must have known all its secrets well, without any approximations whatsoever; and I mean thousands of years before Cheops and the 22/7 transcript.

Does scientific knowledge want π?

Great !! here it is: **3.14460** 55110296931442782343433718...
At my sole expense and without asking for anything in return.
It is evident that no other hypothesis can subrogate the current outcome.
I imagine this vital parameter updated as widely as possible in all computing systems – unless they are content to display numbers with more than 30 decimal places, knowing that all numbers after the third decimal place are notoriously incorrect – whether research institutes, educational institutions, scientific organizations, or others, in the interest of the entire Earth Community and of Knowledge forever. It is simple enough to be explained to anyone who has notion of the Pythagorean theorem. I am well aware of the large-scale drama this entails, but so be it. Hopefully, before *AI takes over*.
The true Intelligence is that of the Creative Consciousness Power, ours is a limited and yet conceited effect of it, a consequence because we are the fruit of IT; not a merit, but a supreme gift to be experienced.
Is the alternative perhaps to ignore it and stop at 3.14?
We can be satisfied with four decimal places (our fifth is zero, almost an invitation as confirmation), but for minimal scientific precision, not two.
Furthermore, while rounding a 0.0015 may be acceptable, rounding a 0.0046 is much less so; not forgetting the 6.28, which should become 6.29.
In any case, all operators should be urged to no longer distribute misleading info, and numbers for which there is no longer any justification.

My brief excursus

I have dedicated a lot of time and extreme effort to asserting the correct interpretation of the π – as many scholars have done for centuries in trying to define it – but up to now I have only been able to produce references, extremely and irrinunciatably indicative to lead to the most correct vision, however not sufficient to bypass methodological rigor.
This condition, presumably insufficient to shake the foundations of what has been consolidated in the history of mathematics, although much more convincing from every geometric and numerical point of view, would have required, in my own opinion, a qualitative leap based on pure intuition, prompted by many comparisons valid for a reasonable choice.

Nonetheless, all the previous work of research and mediation of geometric constructs *as proof,* step by step led to the development of a precise deductive analysis, resulting in the only algebraic equation ever produced with a real solution of π, not approximated except by cutting it to the first forty decimal places, given the irrational nature of the number.
This time, there will be no need to memorize thousands of new ones, since we have an integral π at our disposal, and its genesis will be sufficient to select and use it with absolute safety at any level of application, both physical and astrophysical. As for Pi-Day, we will just have to amplify its celebrations with renewed trumpet blasts, even exalted by the astonishing calculation of its Zodiac Ascendant..

I will repeat myself, my attention, since the first publication «2×2=3.14» dedicated to the Squaring of the Circle, has been induced to concentrate rather than on the circle, on its quarter or quadrant, with its circumscribed square, as the most representative factors of the formulas for calculating the circumference and its area, being based on the radius and on a value of ¼π that I was led to consider as an emblem of the true native π, with the symbol ⌞.
This instinctively established a more immediate correlation between the component factors, ultimately reduced to two: radius_side and the elusive π.

And it was precisely this last retracing of the concept added to the treatment dedicated in a special way to the golden section, which marked the passage to the final stage of my vision, which allowed me first of all to focus on the error reiterated in the most established approach to the problem, and then to invert it in a more practicable, direct and stable procedure; similar to the investigation that, following the aforementioned treatise "2×2=3.14" I conducted to formulate the golden spirals, having ventured with a promise, addressed to a terrain that was itself compromised, since certain truths appear all the more complicated the worse they are distributed.

A few words on golden spirals

are worth saying, since I have never dedicated a treatise to this research of mine, although it is unique and not without its startling surprises.

I reached the solution to the "golden spiral" problem after having exposed myself in the brief presentation I gave in the first text, pointing out the falsity of the most widespread, if not now exclusive, reproduction of the spiral by squares performed with a compass, and hinting that I would address it.
Thence I had to do it starting from scratch, until I detected and presented the various typologies of golden spirals, of which the one praised is not the most

significant, together with various discoveries and applications of notable interest such as the spiraloid and the anti-spiral, with the *full formula*:

$$R = \Phi^{\pm P/n} \qquad R = \varphi^{\pm P/n}$$

[where ±P is the finish line of the spiral, $\overline{n}$ the 360° divider or 'golden step' (90°, 144°, etc.),] proposed as the "perfect solution to golden spirals" (see menu, link above) because it allows you to perfectly trace, even on the dedicated online interactive whiteboard programmed to demonstrate it, any model other than the most well-known one for the *golden rectangle* – and compare it with biological or artistic images, even one's own, via upload – against the very few publications of page-long formulas to realize only the first one, exhibited like rare performances, ; or fake drawings associated with the Nautilus shell, to which they don't correspond, but this seems to have little importance.

If that's not enough, it is found developed on the basis of the so-called Fibonacci sequence, which was not created by Fibonacci but at least a thousand years earlier by a Hindu mathematician; and it is presumable that Fibonacci, as a skilled scholar, knew it; but not that he has made himself responsible for the overstated myth that's now being created around his name, so much so that many people refer to the golden ratio as "the Fibonacci spiral," a vulgar contradiction likely cultivated on the web, simply because Kepler identified a discrete parallelism of it.

Since the sequence begins with 1,1,2, it cannot generate a true spiral but only a deformed imitation, much less a golden one, being unidirectional. Rather than a series, it is an elementary, arbitrary numerical succession, peculiar but devoid of any mathematical principle of its own.

In particular, even if it rudimentarily modulates astride the golden ratio, it can never represent it or replace its effects, nor achieve it entirely, based only on integers, which can at most fragment its course, like an interspersed echo.

A useful clarification

It's all more complex to explain than to understand – because, as I've always said, intuitions come first, explanations after – especially the simplest things, and this has made me repetitive; but *I spared no expense* in emphasizing the magnificent congruence between the parts.

This diagram, with its at least kaleidoscopic contents, due to the surprising golden combinations that continuously meet, offers several ways to verify its potential uniqueness; in particular thanks to the *magical two-way recursion* of the golden ratio, present in every fold of the diagram.

In this regard, a clarification is essential. Even if the solution to the research will emerge as absolutely pivotal and attributable to the Golden Section,

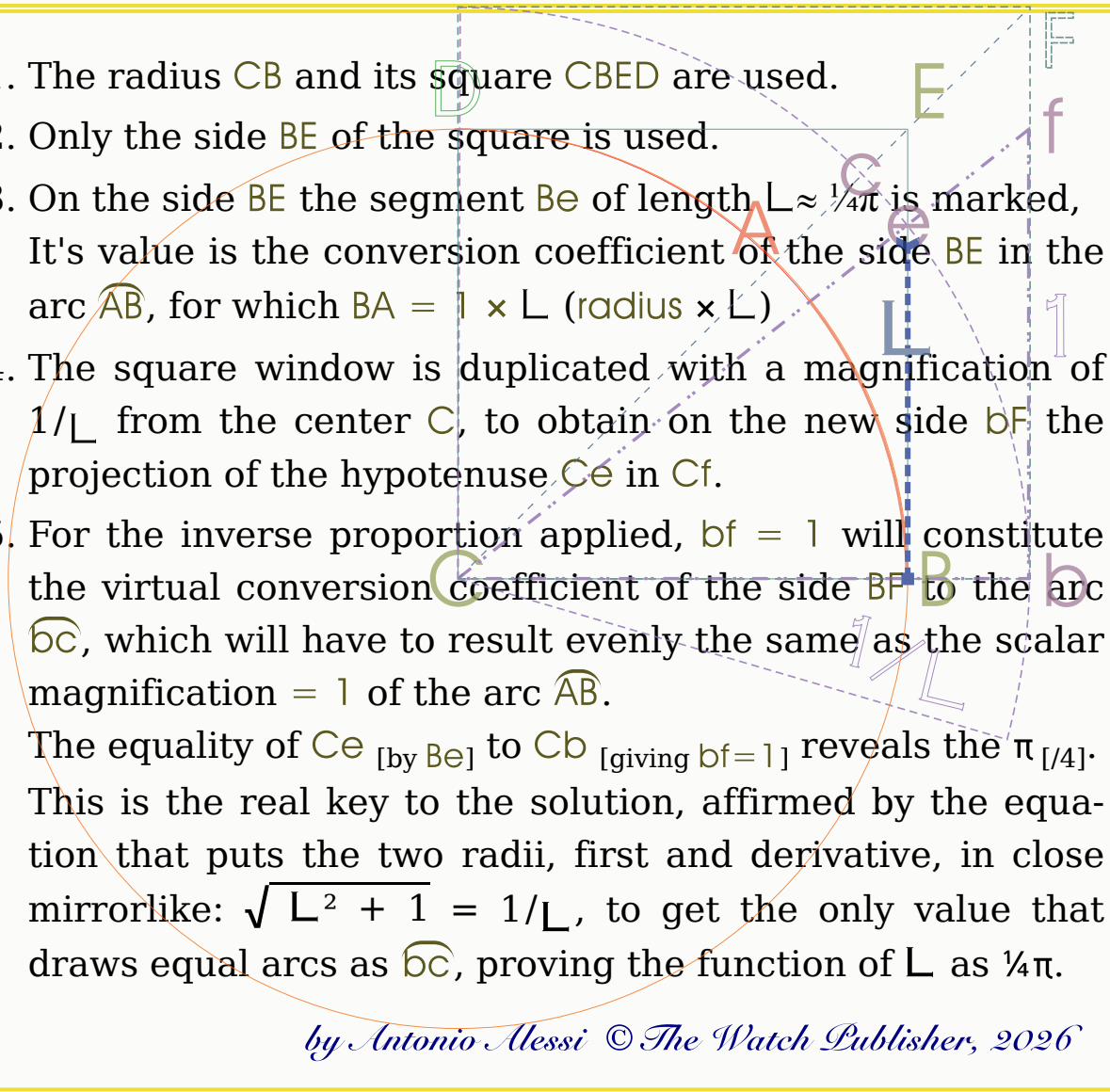
I would like to point out that this relevance, although always supported by me, will be revealed only once the result has been achieved – since this is – while the procedure I have set up here does not make use of the Φ, but only of the ideal constant ¼π as an unknown, and of the parameter L, using calculation tools accessible from middle school, such as the square, the square root and algebraic relations applied to the first elementary plane figures, without having to deal with the limits of functions or an imaginary infinity; even if it then leads to a 4th degree polynomial equation, solvable at the higher levels.

Other authors may perhaps reformulate the same theorem more stringently, or with alternative visions, advancing new perspectives, but the outcome cannot be different; therefore, I will suffice with this, for which I strive to be clear and apprehensible, even retracing it, in order to improve my own exposition.

All in 5 points

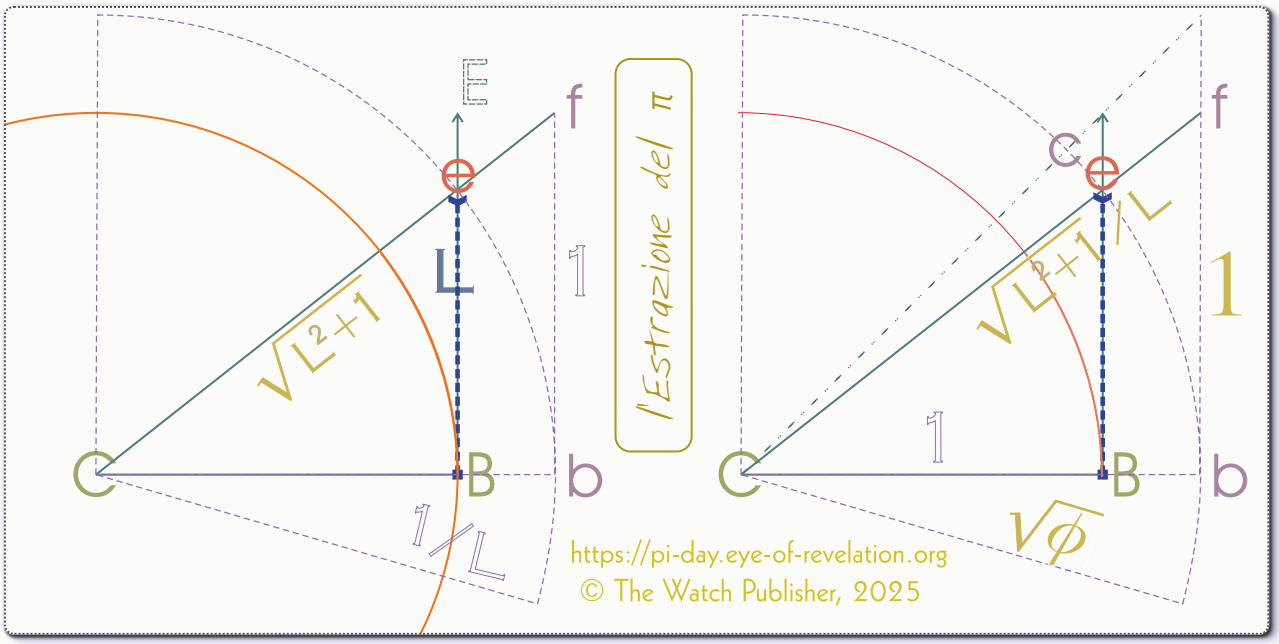
Wherever I wasn't, or if anyone wants to report the theory without any philosophical undertones (as long as they clearly cite the source), here's how it works in 5 lines and stripped down to the bare bones, given a unitary circle.

1. The radius CB and its square CBED are used.
2. Only the side BE of the square is used.
3. On the side BE the segment Be of length $L \approx \frac{1}{4}\pi$ is marked, It's value is the conversion coefficient of the side BE in the arc $\overset{\frown}{AB}$, for which BA = 1 × L (radius × L)
4. The square window is duplicated with a magnification of $1/L$ from the center C, to obtain on the new side bF the projection of the hypotenuse Ce in Cf.
5. For the inverse proportion applied, bf = 1 will constitute the virtual conversion coefficient of the side BF to the arc $\overset{\frown}{bc}$, which will have to result evenly the same as the scalar magnification = 1 of the arc $\overset{\frown}{AB}$.
The equality of Ce [by Be] to Cb [giving bf=1] reveals the π [/4].
This is the real key to the solution, affirmed by the equation that puts the two radii, first and derivative, in close mirrorlike: $\sqrt{L^2 + 1} = 1/L$, to get the only value that draws equal arcs as $\overset{\frown}{bc}$, proving the function of L as ¼π.



by Antonio Alessi © The Watch Publisher, 2026

Recognizing L [Platinum] as the unit of measurement or elementary module of the circle, we can state with semantic certainty that for the quadrant of the unit circumference "L m curves r m" and for the area "L m² curves r² m²".



And if it were still too verbose, after all this wandering through principles and concepts, every aspect of which I've forced myself to ponder, I'll be even more stringent, with a disarming and terrible simplicity, after so many repeated global failures: three steps, perhaps a bit hasty, but truthful.
Then just one, and *rien ne va plus*!.

1. Keeping the unit circle, we draw on its tangent to the base CB the segment Be of hypothetical length L = ¼π.
   The length of Ce, hypotenuse of CBe, it will be in any case $\sqrt{L^2 + 1}$.
2. We aim to magnify the circle with a ratio of 1/L, which will be the measure of the new radius Cb, as for the new Ce of equal magnification of the unitary radius, for which e should also mark the intersection of the arc $\overset{\frown}{eb}$ with the side BE. Thisis because, the arc $\overset{\frown}{be}$ that arises from the enlargement of the radius CB must overlap with the same $\overset{\frown}{eb}$ generated by Ce.
3. To verify that this is true for the measure attributed to L – or just to calculate its actual value – it will be sufficient to compare the original Ce with the radius of the new circle; we have seen how.

"The Origami of Power"

In essential concepts: to obtain a new semi-arc $\overset{\frown}{cb}$ of length =1, the length of Be must be such that $\overset{\frown}{cb}$ passes through the point e, since only in this way will the diagram on the right be satisfied, so that bf results as the rectilinear projection of the arc $\overset{\frown}{cb}$ = 1, which implies the equivalence of (*Pythagoras*)

$Cf^2 = bf^2 + 1^2$ to the extension of $Cf = Ce \times 1/L$. Algebraically:

$$\sqrt{L^2 + 1}\,/L = \sqrt{(1/L)^2 + 1},$$

Now that we know the correct result, we can enjoy the privileged and wonderful magic of the golden ratio, allowing us to rotate numbers and symbols with unparalleled ease, to jump to a result that could be read almost directly:

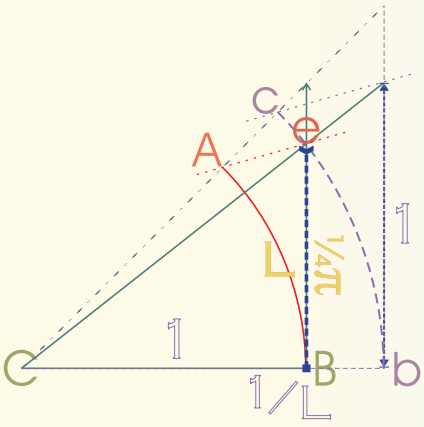
$$\sqrt{\Phi + 1}\,/L = \sqrt{\varphi + 1},$$

$$\sqrt{\varphi}\,/\sqrt{\Phi} = \sqrt{\varphi^2},$$

$$Cf = 1.618$$

The mystery of that message transmitted to me from another space-time appears ever clearer to me, ever since my first considerations on the great pyramid of Giza in the drafting of the treatise on 'the 5 Tibetan Rites'; it was repeated by heart by a partner (who however did not grasp the meaning) "The Origami of Power", already mentioned on this site, but not yet so pregnant of meaning.

Still dissatisfied with a definition that requires continuous effort, I am drawn again and again to the essential focal point of my "π drawer" theorem, by pretending that even before being algebraic, it should be elementary:
if ¼π multiplying each side = 1 of the quadrant of a circle converts it into an arc = ¼π (⅛ circle), the value of ¼π brought to 1 must convert the side of the square enlarged proportionally from 1, into an arc = 1. By our diagram:



Given a unitary circle in C, on the tangent of a semi-arc $\overset{\frown}{AB}$ of the quadrant $_{[1,1]}$ its length ¼π is simulated in Be as L; thence as $\overset{\frown}{AB}$ and L are enlarged until the module L reaches height =1 from b, the arc $\overset{\frown}{cb}$ with radius Cb from the new side-tangent, must match the magnification of $\overset{\frown}{AB}$ to 1.
From another point of view, the arc $\overset{\frown}{eb}$ and the new fb must meet at b.

We have disclosed how much the golden ratio can be connected to the circle, so much so as to help us uncover its protracted secret.

The use of ⅛ of circle deserves further mention. Far from being a minor perspective, it is not by chance that we end up observing the circle in a way based on the number 8; it was not an extemporaneous arbitrariness, since it is precisely its modular value that opens the gate to exploration of π; which in my analysis is nothing other than the constant L. For me this is the monad.

The ∞, cut in two parts by the vertical axis, generates two symmetrical S, like opposing wave-like figures, a symbol of completion in balance, and from the horizontal axis, two entire circular paths, communicating in perpetual alternation, with opposite directions of rotation that merge into Unity. This gives rise to the image of boundless infinity, just as the ∞ is horizontal in mathematics, in a form even more dynamic than the hieratic circle, whereas the square is merely its static extension in the physical dimension. See also the TAO, below,

Appearances can be deceiving

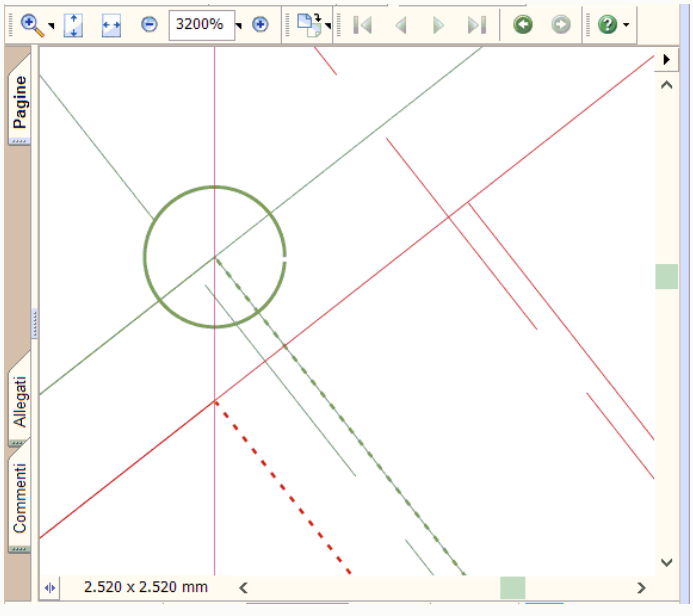
I mentioned that π / 4 would leave the figure perfect at this level of illustration, but if that was enough to draw up a concept or a project, numerical reality is another matter. I couldn't resist a graphical verification, which was, after all, much less demanding than when I had to present the discovery that the 90° golden spiral was made up of quarter ellipses; a compelling, almost creative theme, while this one is far too basic and, as already explained on the page detailed below, simply seeks to highlight the inevitable error. However, since a visual comparison between the two versions is warranted at this point, it's worth examining to see what and how much the mind can be led to miss.

I have highlighted the resolution on a board of 7,143 points, adopted to solve the Śrī Chakra yantra without errors, and a unit radius of 3,000 points.

Given the high precision required, it would be pointless to embed it in the HTML page, this PDF, requires a powerful reader and a suitable screen.

I embed the image below in the e-book; to scroll, you need to set the zoom view to 'Fit Page', but you can magnify it as much as your reader allows.

In any case, for ease of reading, I reproduce here the most important detail enlarged to 3200%.



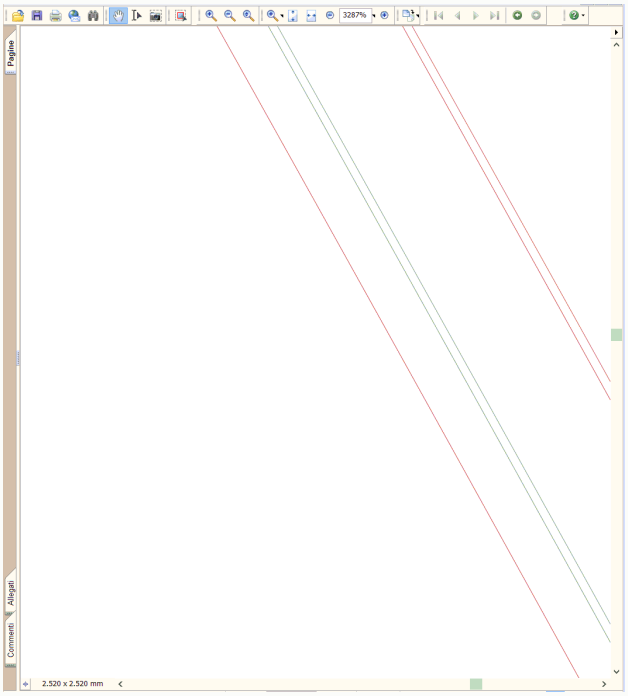
The scheme of course requires high definition in the paths of the two overlapping cases: the one based on π = 3.14460 is in green, the one based on π = 3.14159 is in red, without the need for letters and numbers since the curves correspond to the descriptions already given, while it would be difficult to see both ends of the paths here, even if marked with letters.

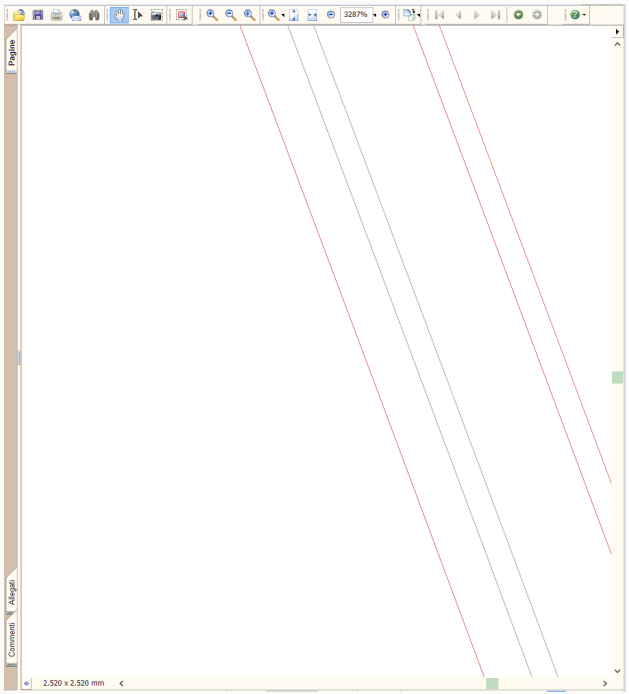
I also provide the code, to allow further tests to anyone who wants to manipulate its few elementary parameters.

The smaller oval on the left, set for the zoom, indicates the differences between the arcs of the two phases; the larger one on the right is the point of arrival at height =**1** (marked by the dotted line), where we can see that the red triangle (from 3.1416) gives rise to a square with a larger side, of which the height =**1** can no longer constitute the expected curvature factor. Of course, even the initial measurement in the 1st box could not fulfill this task, but this could only emerge from the discrepancy between the two opposing phases.

The two arcs having as radii the bases of the larger squares are in solid lines, while those from the hypotenuses are in narrow and thicker hatching, to be able to show that the two cases in green (3.14460) overlap.
A normal view in fact will make the two schemes appear equivalent, while one of the two involves giving up the π magnificence.

The 8 decimal places of PostScript are more than enough to highlight the differences, but they require the maximum zoom achievable by your reader, around the areas circled by dashed blue ovals.
To obtain arcs as perfect as possible, however, I had to use a manual algorithm based on sin() and cos(), since the PostScript **arc** operator is not, for reasons already mentioned in various details.
This is immediately confirmed by the exact intersection of the green arc with the side of the square and the triangle (PI 3.14460 – double-circled), which evidently none of the other curves respects.
To exemplify them tout court, I also wanted to include the circles drawn by the PostScript (360° in dashed lines) which, probably based on the current pi, differ from the more truthful arcs of my code (with a continuous line).





The difference between arcs from the native PS and trigonometric arcs, whose amplitude even varies at different angles, can be clearly seen in the two screenshots above enlarged with the same zoom (3287%), which I reproduce here for the reader's convenience.
Applying my simple PS algorithm to the half of ¼circle, with an extreme reduction of the step one could even try again the rudimentary calculation of its length; but it would no longer make sense to do so, we already have the π.

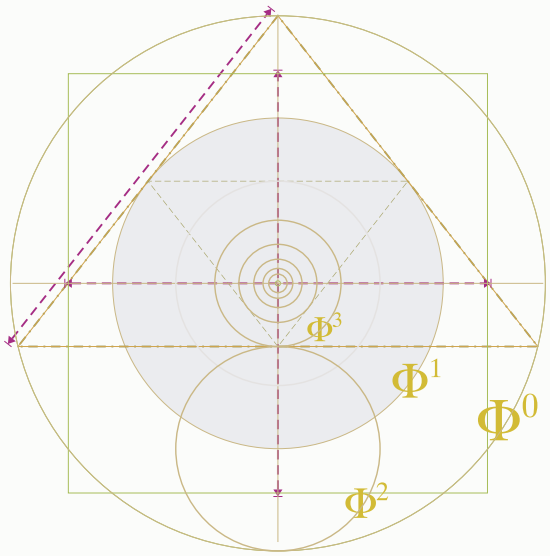
The Farewell

At this point, I would like to apologize if my overly free writing may, in some cases, seem inappropriate for a scholar context. It arises spontaneously as a narrative aimed at anyone interested in reliving and embracing the relevant concepts, since they resolve a problem that has held scholars of every race in the same bind for millennia, with an immediacy that could almost be integrated into school programs.
Once the work is finished, as always I see that I could rewrite it more concisely, but not in the remaining week from today... Please, forgive too if my English is not the best; sometimes I have to assemble on-line translations (not infrequently misleading) like instructions of a programming language.

Unfortunately, the stubborn, almost obligatory, attempt to straighten the entire circumference has increasingly distanced thought, as culture has transformed over the centuries, from grasping the transcendental impact of the circle.
The past vision has only trampled on its properties, while my study has exalted two natural samples, responding to a π that unites them and can make them converge from two converse edges.
To use a metaphor, it was like lowering the drawbridge of an impregnable fortress, then admiring the scenery from inside and outside the walls, from both sides of the moat. One had to enter the circle, participate, not besiege it.
As you can see here, its π was ready inside, they just had to get it.
On the contrary, scholars have increasingly tried to bite directly into an apple cut in half, while here I preferred to cut a slice and then peel it and enjoy it.
It has to do maybe with that apple which, in memory of the *stage* of Adam and Eve, involved Isaac Newton and managed to be remembered even in this circumstance, due to the way it appears connected to the principle of universal gravitation.

Mathematical science could not be complete without knowing the real π, which it has lacked since its very beginnings; but above all without understanding its meaning, which is much deeper than the calculation of circles and circumferences. It will take time, but at this point the main door is open.

The circle represents essentially a gravitational field within which and/or outside of which everything rotates and manifests itself, integrating any wave principle whatsoever. That the π is its regulator and guarantor of the maintenance of equilibrium is a more modern, let's say post-Newtonian, concept of mine, which I introduced on pages 29 and 30 of my first treatise «2×2=3.14» after a year of study since its publication. A treatise that I presented as the first assumption of the squaring of the circle, the postulates of which have been confirmed to be correct from today onwards.



The very spontaneous desire to transform a circle into an equivalent square denotes an instinctive perception of the fundamental relationship governing the two figures; not from the circle to any polygon with a greater number of sides, at least in an initial symbolic approach, even if seemingly closer to the goal. Nor a triangle, although this proved to be the most immediate process, according to my insert of November 8, 2023, which I can now happily confirm.

With no better alternatives in the casuistry, mathematicians have entrusted the validity of the most *established* formulas to the computing power of computers, to the point of defining with the adopted methodology a network of links so tight that it was impossible to go beyond them; perhaps aware that however advanced the formulas employed, they were no more than an acceptable stopgap, for the reasons I have attempted to address above.

All this could be overturned and overcome only by questioning the circle, which could not lie. I hope the entire academic world can do the same, for now it has the solution on a silver platter... with a serving of pure gold, capable of opening unexpected channels to the wisdom of numbers and forms, and which will lead much further than the 3-thousandth leap, towards a harmonious interpretation of the the architecture of the Universe (of which many speak, but no one truly knows what it consists). It will become clear that in comparison the current pi is a dead-end for any alternative access.

– NB – In my website are exposed some of the reasons why I prohibit the reproduction of my writintgs on Wikipedia, removing at least three of my different topics in 17 years As to this case, my first presentation of the Great Golden Triangle, of which here is the goal, was rejected by the editor's textual decision: "given that the self-evidence of mathematics has ended for twenty centuries now..."

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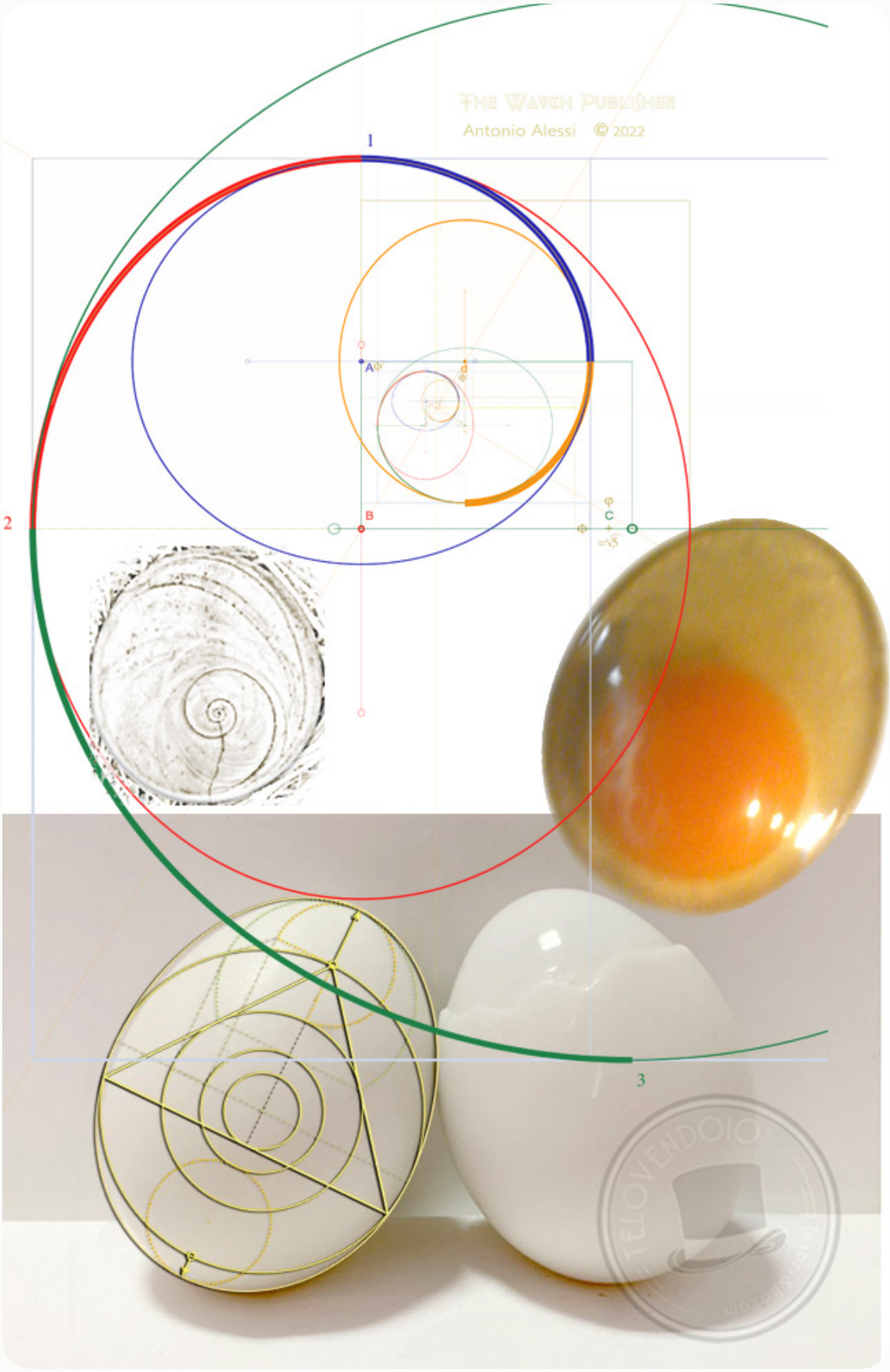
I will, however, leave intact the growth path exposed on various pages of the pi-day.eye-of-revelation.org domain, divided into many more engaging articles and research studies, like pieces of a mosaic composed of months of verifications – albeit inserted at times and in ways that make it like a patchwork due to the sometimes overbearing alternation of thought – which jumps here and there without warning, but which have guided me to develop this solution.
I must say that my writing is almost never preordained, except in intent.
It's experimenting, meditating, and where possible discovering. I never know where the topics may or want to lead.
There are scattered curiosities, but also insights, in my opinion not always obvious, for new canons in the acquisition in essence of the main geometric figures, which enrich their dynamic interpretation in every dimension.
I will limit myself to updating a few passages, not without inviting the researcher to meditate on the insights that guided me in this undertaking.
Overall, it brings notions of cognitive and constructive utility – not without solemn grandeur (*not through any merit of my own*), from the hitherto paradigmatic power of the Divine Triangle, now confirmed in terms of absoluteness, to the revelation of the Golden Section in the metaphysical and hermeneutic sense from which this study arose, to confirm the fundamental perspective that the π, multiplying by itself, is its physical and metaphysical Source, like the soul whose deepest perception has not yet been grasped.
Asking whether π derives from Φ or vice versa it's like asking *"whether the chicken or the egg came first"*. Generating or generated, π should be acquired and understood as a pillar emanation of Universal Intelligence.

If one observes and meditates on the few emblematic figures that follow, do one not perhaps perceive the powerful attractive and expansive synergy of the π together with the golden section, for the fulfillment of the Cosmic Egg?



Dividing the ONE by L gives the $\sqrt{\varphi}$, side of the square carrying the universal expansion in the 4 fundamental directions; doesn't it inspire you?

Even if the essence of this final stage is autonomous and self-sufficient enough to leave one free to ignore any previous one – which applies even more so to any other historical attempt to define the π – I trust that retracing the various stages of my investigation can point to new ways of sharing further hidden aspects of the celestial Project.

This ultimate work of mine marks the irreversible transition from mere intuition to proof and cannot be ignored.
Believing to have reached the required π, and that adding decimals increasingly contributes to defining the true goal, is the most misleading thing in the world. I have clearly reiterated the geometric reason in several places on the website and in my first essay: 3.1415 is already incorrect from thousandths onwards, and after this test there can be no doubt left.
But I know all too well that there are those who understand (and can't do anything about it), and those who don't want to understand! If I had participated in memorizing one or two thousand digits queuing at 3.14... perhaps I would react the same way. Nevertheless, this festive attitude not only does it divert attention from a more in-depth scientific application, but it implicitly prevents the grasping of the most important of truths:
π [the effective one to recognize] is the source and with its square is the generator of the global equilibrium in the form of $\Phi \div 1 = 1 \div \overline{1 + \Phi}$.

A step back

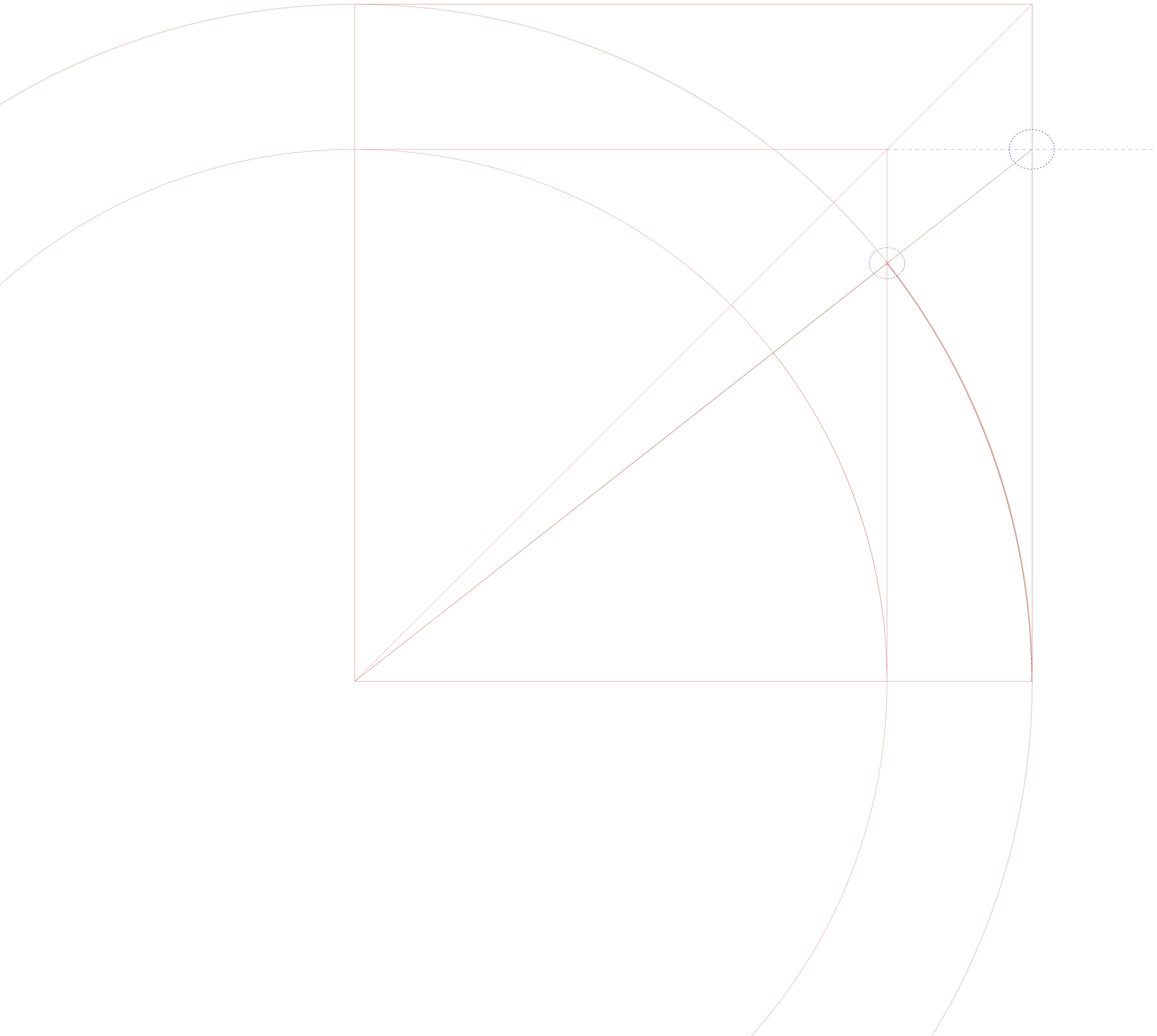
My recent article on the golden section, already in the e-book «1=X+XxX.pdf» on November 13, 2025, has been enriched by a final
addendum - - December 16, 2025, one passage of which reads:

> « "the relation between two contiguous sides of a square
> with the corresponding arc of a circle virtually inscribed in it
> is in my opinion the most suitable to mark the step towards the π." »

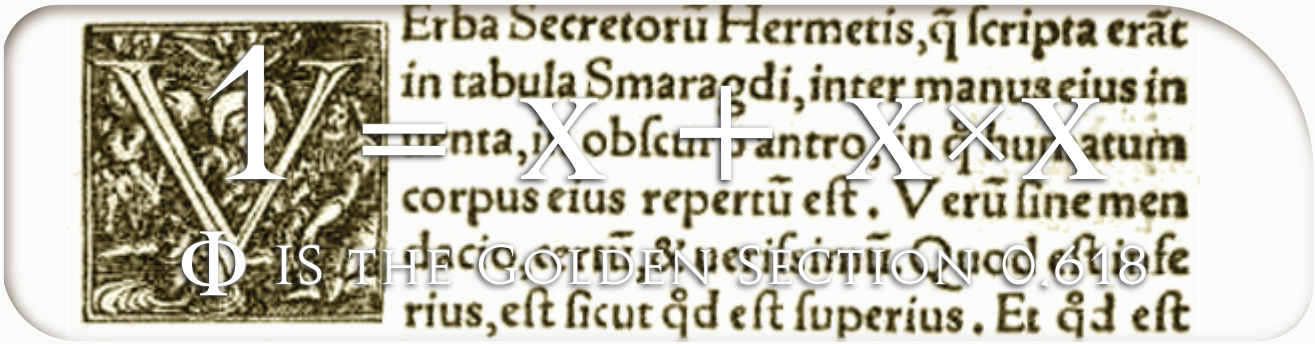
A final statement, for which I had no other evidence than my instinctive intuition, imprisoned for too long, precisely became the springboard to the π, challenging me to analyze it until the final extraction.
It leads to the acknowledgement that the expansive-active value of Φ and the passive-enveloping value of φ, which is its mirror and functional connection, as in my view, are intrinsically governed by the π.. In this regard, I would suggest meditating on my development of the vital principle of the golden spiral.

Indeed, to integrate the context, could not miss the golden truth about the Divine Proportion, which we are still so far from having understood, that to better recognize it, people must rely on the Fibonacci series 1, 1, 2, 3, 5, 8, 13... which although appreciable in the long run, offers only a pale reflection of it.
I will therefore combine, as a worthy continuation of this editorial development, the aforementioned essay on the golden section,
In addition, some essential corrections to the most widespread interpretation.

Antonio Alessi © The Watch Publisher, 2003-26



Φ IS THE GOLDEN SECTION ⊙·618 © THE WATCH PUBLISHER 2025


1=X+XX
Φ IS THE GOLDEN SECTION 0,618
Erba Secretorũ Hermetis,q̃ ſcripta erãt
in tabula Smaragdi, inter manus eius in
corpus eius repertũ eſt. Verũ ſine men
rius,eſt ſicut q̃d eſt ſuperius. Et q̃d eſt

« “Smaragdina Hermetis Tabula” detail - by Johannes Petreius ed. “De alchemia” 1541 »

A further step towards the awareness of the
Divine Creative Consciousness Power.

Abstract

Treatises can be filled with formulas, more or less sophisticated calculations and endless correspondences, thanks to the surprising mathematical potential of the golden number in the maximum and minimum hinges of nature – even still ignoring the support of its dominant root which is π – but which, while fueling the complacency of the authors, remain almost fruitless if they do not attest to its supreme essence except in common statements and titles.

This brief summary of mine does not claim to replace them, but, although not equally suitable for everyone, longs to direct towards what must be understood instead of phantom interpretations of the portrait of Mona Lisa, or fictious attributions to Leonardo da Vinci's Vitruvian Man and so forth.

Not to mention that certain geometric schemes built with segments, polygons and circles, adopted to reproduce the golden section in its endless variations, may not respond to actual calculation controls, being referred to the π 3.14159 which is inexact and in conflict with Φ – just as happens with the pyramid of Giza – instead of the correct 3.14460 deriving precisely from its square root.

The Golden Ratio is not only a wonder recognized in the mathematical world, but it is the tangible numerical expression of a metaphysical power, the supernal ratio which takes shape through the figure 5, being always traceable to it.

The word ‘Divine’ is now widespread, but without any real connection with the concept itself, which mostly today appears to be kept well away from scientific ground. Its manifestation is sought in the harmony and aesthetics of living forms, albeit without granting objective evidence to the Capacity of Creator.

With "Golden" you can play as you like, anyhow before approaching the term "Divine" we must be aware that it does not pertain to some religious unreality but reflects the Unique Being, as Creative Consciousness of the Universe, if you prefer the Suprem Causal Intelligence and not its concrete effects, more or less complex. I will propose that in its simplest and most direct dynamics – not free from a due and unprecedented rectification – beyond the current stage of growing and motivated wonder of scholars attracted by the numerical phenomenon alone, which is finally emerging with ever greater evidence.

Cosmogony of the Golden Section

What is the Golden Ratio really? A further step along the path of knowledge, towards the recognition of the DIVINE CONSCIOUSNESS.

Imprimis, only one is golden section, not two: and it is Φ, **Phi 0.61803**...
the other, φ, phi [1.618] although the most commonly adopted, is its first derivative, mathematically an addendum, or its specular projection, which can be referred to as golden ratio, but not the 'golden section' whose proper definition by Euclid himself, ("Elements", 300 BC), was division of a segment "in extreme and mean ratio", so that the proportion of the whole length to the section equals the ratio of the section to the shorter length – that is its own ratio; which the title $\Phi + \Phi \times \Phi = 1$ maximally synthesizes.

I know very well that this statement may irritate some; but can they explain to me how they can consider 1,618 a section? A section of what?
It is derived from 0.618, either as its division by $1 / \Phi$, or as its sum $1 + \Phi$.
The comparison of these terms: $1/\Phi = 1+\Phi$ gives the essential true equation.

Always defined as 'section' since ancient Greece, thus described up to Pacioli, and by Kepler as 'mean and extreme ratio' (of a segment), everything suggests its internal ratio to any quantity whatsoever, although in the many titles that confirm it, just to name a few below – as well as in the proliferation of web articles, more or less attracted by the magic of the number – the meaning of section is not taken into account at all.

1.618 is preferred instead, perhaps because it is more flashy, but it is only the reflection of the section applied to the 1.

It is known that Leonardo da Vinci himself, illustrating Luca Pacioli's book, with the *generic* title «Divina proportione» (1509) referred to this ratio as "sectio aurea", that is, golden section; later "sectio divina" for Kepler.
Here are some more authors' picks:

Author	Title
Martin Ohm (1835)	introduced the term goldene Schnitt (“golden section”) in "Die Reine Elementar- mathematik" “The Pure Elementary Mathematics”.
James Sully (1875)	The first known English use of “golden section”, in his article on aesthetics for the 9th edition of the Encyclopae-dia Britannica.
Dorothea Rockburne	Working with the golden section, 1974-76 [exhibition], John Weber Gallery, New York/Oct.30-Nov.27, 1976
Albert van der Schoot	Who invented the Golden Section? Het ORGEL 99 (2003), nr. 3, 38-40
Mcmanus, Ian. (1997).	The Golden Section and the Aesthetics of Form and Composition: A Cognitive Model. 15. 10.2190/WWCR-VWHV-2Y2W-91EE.
Dr. Scott Olsen (2006)	"The Golden Section: Nature's Greatest Secret" (Wooden Books, 18) Emeritus Professor of Philosophy and Religion
Fletcher, Rachel (2006)	"The golden section". Nexus Network Journal. 8 (1): 67-89.
Frings, Marcus (2002)	"The Golden Section in Architectural Theory". Nexus Network Journal. 4 (1): 9-32.
Jones, Ronald (1971)	"The golden section: A most remarkable measure". The Structurist.
Howat, Roy (1983)	"1. Proportional structure and the Golden Section". Debussy in Proportion: A Musical Analysis. Cambridge Univ. Press. pp. 1-10.
Salon de la Section d'Or La Section d'Or	October 1912, Mediation Centre Pompidou Numéro spécial consacré à l'Exposition de la "Section d'Or", no. 1, 9 octobre 1912, pp. 1-7 Archived 2020-10-30 at the Wayback Machine,
Camfield, William A. (March 1965)	"Juan Gris and the golden section". The Art Bulletin. 47 (1): 128-134.
Scimone, Aldo (1997)	La Sezione Aurea. Storia culturale di un leitmotiv della Matematica. Palermo:
Walser, Hans	[Der Goldene Schnitt 1993]"The Golden Section". P. Hilton trans. Washington, DC: The Mathematical Association of America.
Knott, Ron	"The Golden section ratio: Phi". Information and activities by a mathematics professor.
Emma C. Ackermann	§. The Golden Section - Michigan State Normal School

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"Deus est monas,
monadem ex se gignens,
in se unum reflectens ardorem"

Liber XXIV Philosophorum

In secundis, *locution that comes ad hoc!* from a hermeneutic point of view, the Source of Creation, the Unique Principle or however one can conceive it, to give rise to the polarity of positive/negative, yin/yang, Shiva/Shakti, Father/Mother; what esotericism has always taught, as well as the CHRIST in the 5th of his 9 LETTERS (1998), i.e. recent Lessons to human knowledge, not surprisingly the fifth! could only split with immense will, not expand.

For the ONE nothing is in being outside of the Self: it has been riven, divided, not multiplied, thus only determining the positive-negative antithesis: expansion/contraction consistent with the Φ; attraction/ /repulsion in gravitational equilibrium regulated by the π which is its square root (for our use the perimeter 3.1446 of the square with that side, i.e. with area Φ), terms which are in essence deeply and absolutely correlated and inseparable.

For greater clarity, it is worth remembering that the π, the heart of the golden ratio Φ, is not only the factor that guarantees the equidistance of every point on a circumference or sphere from its center – which is not a visible point like every vertex of a polygon – but as such it integrates the principle of gravity in space, regulating the motion of subatomic particles by the universal constant 0.78615, which I like to call Platinum with the symbol L. It expresses the transcendence of the circle, which has no beginning or end but represents the only possible form of every gravitational field; a transcendence that should not be attributed to π 3.14460, which is an irrational number algebraically derivable from the golden ratio. L [× 2] is a figure that indicates more directly the ratio between two contiguous sides of a square of side = 1 with the corresponding arc of a circle of radius = 1, virtually inscribed in it, that is between a side and ⅛ of circumference, the ratio in my opinion most suitable to mark the step towards the π, given that, in short, the area of the quarter circle of radius r is the golden section of that of the square of side r.

While π ensures balance, Φ generates development and evolution, an essential integration that cannot be ignored.

CHRIST Returns — The Process of Creation

5.143 **UNIVERSAL CONSCIOUSNESS was RIVEN!**
WILL & PURPOSE

5.144 Father INTELLIGENCE & Mother NURTURING LOVE
were exploded to work independently and also jointly.

5.144.1 **Their respective *tools* were**
Electricity & Magnetism

5.145 Out of the explosion of EQUILIBRIUM came the
GREAT INTENT of SELF-EXPRESSION

5.146 The Universal Awareness of BEING became
the Impulse of individualised 'I' awareness
demanding self-expression

5.147 LIFE and 'I'ness are synonymous in the dimension of ***matter***
They became the consciousness of *matter*

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This Divine Proportion pervades all creation, echoes and resonates throughout all creation, at any level and dimension; it is the foundation of reality.
The essence of the Golden Section is the formula that represents the tear:

$$1 = x + x \times x$$

An expressly symbolic notation, with semantic figures, for those who understand it, and try to scan it out loud. Φ enunciates in cipher the only Power [x] that can amplify the One, integrating with It in expansion to φ, which takes place exactly in dividing it; and maintains its identity with unchanged decimal tail even in the union, as well as in its square where the 1 comes 2.

Interpreting it from a dialectical perspective, a sort of 'partnership' of the Golden Number with the Unit is confirmed by having divided it, which allows a two-way comparison, both by addition with Φ, and by subtraction with φ.
By factoring the union from $^{1}/_{\Phi}$ [1.618] for which Φ is added to **1**, the outcome of the operation is indifferent in the double perspective: whether Φ adds **1** to itself [Φ +1], or whether Φ is added to **1** [1 + Φ]. It changes instead for φ, if it subtracts the **1** from itself [φ -1], or if it is subtracted from **1** [1 - φ], resulting negative in one of the cases ± Φ, which however lead back to Φ as the basis. The resulting statement is the most linear of all:

The golden ratio Φ is the unique number that by dividing the One enriches it adding itself. The golden ratio φ, by dividing the One reduces it, and by adding exalts itself.

To better assimilate its fundamental and mysterical Criterion:
the golden number represents – not only abstractly – the only partition of the ONE that in dividing It, results at a time added and unified to It, in the perfect unfathomable equilibrium and mutual restraint.
The TAO symbol alike, with yin ~ yang, each containing its opposite.

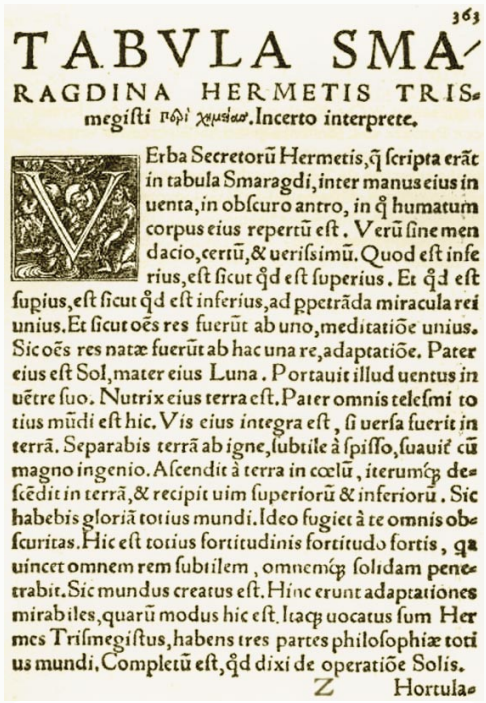
We also find it in the very famous "Emerald Tablet", one of the most important and discussed myths of ancient Egypt, having established over the centuries the commandments of alchemy and the most committed esotericism.

I translated it from a now classic Latin version, but a last one among who knows how many others in every language, and all even only partially misunderstood and then subject to interpretative alterations; which seems obvious after all, otherwise at least one would have prevailed, with global effect.
It was certainly not intended for the general public.
However, its first three paragraphs, which have become a universal emblem, sound clearly and unequivocally – understandable to everyone – what maximally completes our assumption: ONE is the Whole, from which everything descends.

« • IT IS TRUTH WITHOUT LIE, CERTAIN AND VERY TRUE:
• THAT WHICH IS BELOW IS LIKE THAT WHICH IS ABOVE,
AND
THAT WHICH IS ABOVE IS LIKE THAT WHICH IS BELOW.
TO EFFECT THE MIRACLES OF THE ONLY PRINCIPLE.
• AND LIKEWISE ALL THINGS AROSE FROM THE ONE,
FOR THE CONSCIOUSNESS OF THE ONE:
THUS ALL THINGS DRAWN THEIR BEING FROM
THE ADAPTATION OF THIS FIRST ESSENCE.
• SUN IS THEIR FATHER, MOON IS THEIR MOTHER.
• THE WIND CARRIED THAT IN ITS WOMB.
• EARTH IS ITS NURSE. • THE FATHER OF
EVERY TELESMA OF THE WHOLE WORLD IS HERE.

[read all].

From latin text of «Smaragdina Hermetis Tabula»
transl. from Arabic language, by Abu Musa Jabir ibn Hayyan (Geber) 721 d.C..– Johannes Petreius ed. «De alchemia».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TABVLA SMA-
RAGDINA HERMETIS TRIS-
megisti περὶ χημείας. Incerto interprete.

Verba Secretorũ Hermetis, q̃ scripta erãt in tabula Smaragdi, inter manus eius inuenta, in obscuro antro, in q̃ humatum corpus eius repertũ est. Verũ sine mendacio, certũ, & uerissimũ. Quod est inferius, est sicut q̃d est superius. Et q̃d est supius, est sicut q̃d est inferius, ad ppetrãda miracula rei unius. Et sicut oẽs res fuerũt ab uno, meditatiõe unius. Sic oẽs res natæ fuerũt ab hac una re, adaptatiõe. Pater eius est Sol, mater eius Luna. Portauit illud uentus in uẽtre suo. Nutrix eius terra est. Pater omnis telesmi totius mũdi est hic. Vis eius integra est, si uersa fuerit in terrã. Separabis terrã ab igne, subtile à spisso, suauiter cũ magno ingenio. Ascendit à terra in cœlũ, iterumq; descẽdit in terrã, & recipit uim superiorũ & inferiorũ. Sic habebis gloriã totius mundi. Ideo fugiet à te omnis obscuritas. Hic est totius fortitudo fortis, q̃ uincet omnem rem subtilem, omnemq; solidam penetrabit. Sic mundus creatus est. Hinc erunt adaptationes mirabiles, quarũ modus hic est. Itaq; uocatus sum Hermes Trismegistus, habens tres partes philosophiæ totius mundi. Completũ est, q̃d dixi de operatiõe Solis.

Z Hortula-

"inter manus ejus inventa, in obscuro antro, in quod humatum corpus ejus repertus est"

The same cannot be said of φ, for which multiplying the One does not carry much additional meaning, while dividing it only leads to Φ. The alternate formula, i.e. $1 = x^2 - x$ as we will see, would be devoid of interpretative sense.

So That's why the Golden Section is one, unique and part of the ONE in such Proportion as to be considered Divine.
It is found universally expressed in the great golden triangle, that One Divine Triangle which perfectly represents it in geometric reality, as well as in the construct of the Great Pyramid of Giza.
Once this is understood, it is clear that the formula $x^2 - x = 1$ is inverse and in contradiction; but let's watch its development.

The rational description generally adopted is nothing but its scholastic reduction, a widespread version, which emerged from discovering in an easy but indirect way how the Golden Proportion manifests itself in theory and practice; but it is referred to at least two distinct numerical or geometric quantities, and to the relation with their sum or subtraction.
The resulting and varied methods of calculation are sometimes complex and superfluous, displays tainted by the innate need to complicate simple things, precisely because we do not yet know exactly how to frame them.Indeed, it seems that the most widespread way to make it intelligible is to embroider on the elementary school series of Fibonacci integers, which makes me think of it as trying to build the Great Pyramid with LEGO® tiles;

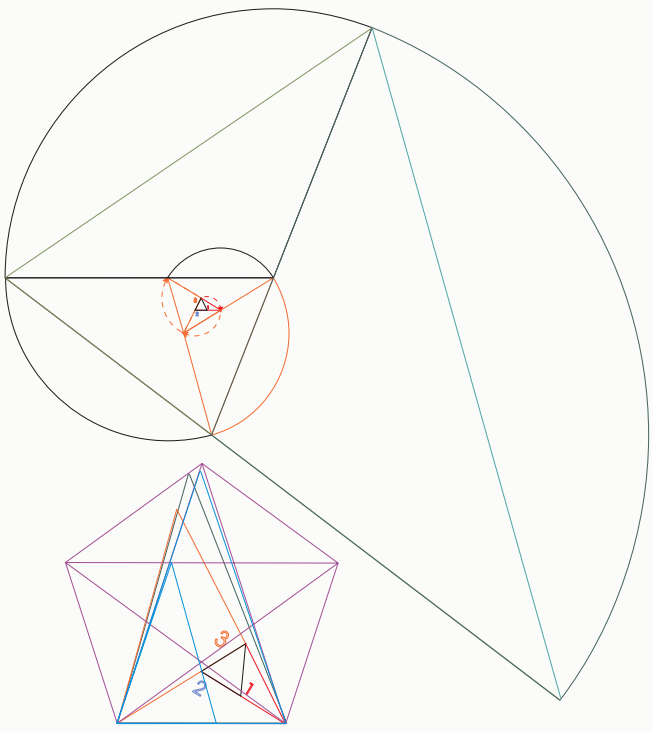
but how could they ever have achieved such a result thousands of years ago, without the help of Fibonacci?

If nothing else, though to *dispel the myth of the golden ratio*, the University of Edinburgh Science Media states that:

> « … Fibonacci later used the golden ratio
> to solve geometry problems in the 11 th century, although
> he never related it to the Fibonacci sequence which is named after him. »
>
> https://eusci.org.uk/2020/07/29/myth-busting-the-golden-ratio/

In fact, as is known, said series had a completely different formation and function; but then the problem of making sense of the golden section remained open...
The fact that the numbers of the series converge to the Golden Section as they grow is only the demonstration that this exact proportion is the virtual *mother* of every event, numerical and geometric, as also demonstrated by my fascinating discovery of the 'spiraloid'; but it will never be able to replace it, in any theoretical or practical context.
Despite the Encyclopedia Britannica's assertion that "the golden ratio is closely related to the Fibonacci sequence," we should instead seek to understand how and why the Fibonacci series can mirror more and more the golden ratio only increasing – i.e. gaining a closer parallelism in itself, and even then in a ± gauge alternation – while the latter maintains the same dynamic property at every level of magnitude and distance.

There is a meaningful similarity in a very special discovery of mine, which evokes the latent spontaneous settling of natural and biological phenomena!



Every type of triangle can give an example of how the application of a spiraloid process to each new side in rotation, enlargess the figure bringing it ever closer to the perfection of the golden triangle (the 1st one, known as 'sublime') as derived from the concave pentagonal polygon, symbol of becoming. Evidently this could not be classified as a miraculous property of any triangle, but of the golden ratio alone. So let's keep to its configuration.

Given an interval of any value AZ, real or abstract but global i.e. unitary, there is within it only one point P that cuts it, establishing between the parts the proportion of the type AZ ÷ AP = AP ÷ (AZ-AP).

As if on cue, it is precisely the alphabet A^{bcdefghijklmno}P$_{qrstuvwxy}$Z that responds admirably to representing it, with 'P' in the position 16 out of 26, where 26 × Φ = 16.07! Furthermore, in the positional system with base 16, i.e. hexadecimal, **P** has code 0050, whose 5, as I have already explained, is an exclusive recurring module of the golden section.

Although only one is the unknown, that is the Φ portion, we can retrace it in the three cases of rotation of the 1 value applied to each of the three quantities.

- The main and most *natural* and eloquent case, therefore, sees the Unity and its Golden Section. Searching it [inside] of the quantity AZ, AZ will be the whole, of which the section-trait AP represents the unknown Φ.

We will have with the greatest simplicity and coherence that reflects the formula:

$$1 \div AP = AP \div PZ$$
$$1 / AP = AP / (1 - AP)$$
$$1 = AP^2 / (1 - AP)$$
$$1 - AP = AP^2$$
$$1 = AP^2 + AP$$

1.0	
A^{bcdefghijklmno}P$_{qrstuvwxy}$Z	
0.618	0.382

whose quadratic solution (easily reproducible online) is:

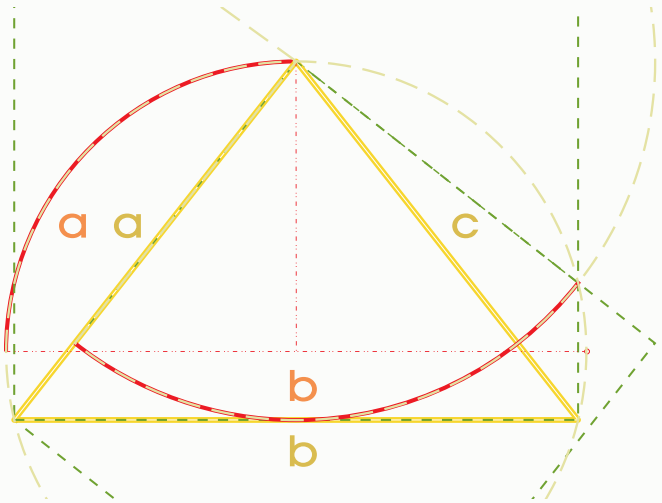
$$(\sqrt{5} - 1) \div 2 = 0.618,$$

and, obviously less significant: $(-\sqrt{5} - 1) \div 2 = -1.618$.

-φ is antithesis; its positive is the emblematic expansion deriving from the subdivision of the One by its golden section: **1 / Φ**.

Nonetheless both satisfy the final assumption: either 0.618 + 0.382 = 1 or -1.618 + 2.618 = 1.

To comply the inverse equation $(1 / AP) + 1 = (1 / AP)^2$, while AP = 0.618 gives the result φ, the value AP = -1.618 gives Φ^2 that is 0.382.



Beyond the usual scholastic formulation of this relation, this ineffable Divine Proportion is what is wonderfully exteriorized and can be contemplated in the autonomous and univocal geometric reality of the Great Golden Triangle.

It is reproduced here with the base **b** and equal sides **a, c**.

These three sides make up the full

proportions $b \div (a + c) = (a + c) \div (a + b + c) = \Phi$, i.e. $(\pi_{/4})^2 = a^2$, as obtained with the actual π 3.14460; for which unparalleled completeness of excellences I intended to call this triangle at the pinnacle of perfection: **DIVINE**.

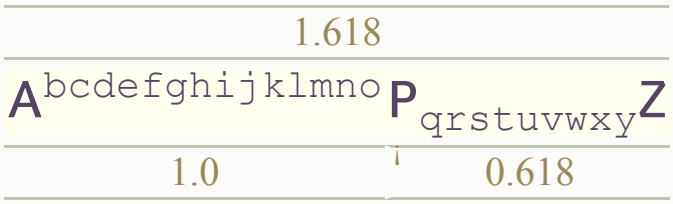
What is more, its vertex involves two circles:
the circumscribed one, which touches it,
whose quarter is equivalent in length to the sides **a** and **c**, and
the one having its center at the vertex of the triangle
and its height as its radius, whose quarter of circumference
is equivalent to the base, to which it is tangent.

Double squaring of the circle, the second of which recalls the legacy embodied for millennia in the Great Pyramid of Giza. The two circles are in proportion 1 : $(1 + \Phi^3)$, like the diameters, which is then the same as the ratio between the side and the base of the triangle.

I played kaleidoscope-style with this hidden pattern at the bottom of my page on measurements of the Great Pyramid of Giza.

- In the 2nd case the monad contemplates its union with its golden section. It is an inverse process that of AP = 1, which searches for the golden ratio outside the unit (no longer a subdivision, but a sum), for which it will be the unknown φ to complete the AZ segment.

$AZ \div 1 = 1 \div PZ$
$AZ / 1 = 1 / (AZ - 1)$
$AZ = 1^2 / (AZ - 1)$
in short:
$AZ^2 - AZ = 1$



In this mode, the equation leads to the negative value -0.618 and to the so-called golden ratio 1.618, which adds up to a value greater than unit, where the unit becomes AP, golden ratio of the whole AZ, a contradiction in terms of teaching and statement; at the same time the negative golden ratio cannot have a square root, thus lacking the implicit and legitimate *genealogy* of the π and the constant L , while the $\sqrt{\varphi} = 1.272$ is physically less relevant, it only reflects calculations that can be obtained in another simpler way.

It can indeed reproduce the interatomic gravitational constant (L> by my attribution) = 0.78615 via a further step, which is $1/\sqrt{\varphi}$, but it just reflects the direct result of $\sqrt{\Phi}$, calculating it in a convoluted way.

- The same occurs in the 3rd triangular case, the extreme presence of the golden ratio, in which PZ will be the Unit, relating the unknown to the segment AP $(1/\Phi)$ [φ], while the entire AZ will correspond to φ^2.

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$(AP + PZ) \div AP = AP \div PZ$
$(AP + 1) / AP = AP / 1$
$AP + 1 = AP^2$
$AP^2 - AP = 1$

2.618	
Abcdefghijklmno	Pqrstuvwxy Z
1.618	1.0

This reflects the exaltations of squaring for the two extremes of the Proportion: in PZ the monad is in the position of Φ^2 [0.382]; of the 1st case;
in AZ we have that of φ^2 [2.618], the union with its section of the 2nd case.

A triumph of the Divine Proportion, which manifests its unrepeatable and irreplaceable potential in the world of numbers and shapes. In addition to the rightly praised concepts of harmony of forms, albeit of of surface elaborations, the Golden Section plays a fundamental role in every process of becoming, perfectly expressing the generative aspect of the *mother figure* 5 the same convex and concave pentagonal figures, or of innovative-substitutive construction and destruction.
The criterion of reciprocal ratio expressed by the relation between external and internal sides, can be found in the formula in fact dependent on the number 5: $\sqrt{5} \times 0.5 \pm 0.5$.

The two roots interact in a unique functional symmetry, which seems to oscillate between the extremes of past and future, synonyms of contraction and expansion; if their mutual multiplication leads to 1, each one, dividing the other, enhances its property by multiplying it by itself:

$\Phi / \varphi = \Phi^2$ [0.382] 1 $\varphi / \Phi = \varphi^2$ [2.618]

It is interesting to note that while φ is the only number that when multiplied by itself increases by one unit (1 is its golden ratio), Φ when multiplied by itself is reduced to its golden ratio (when added to which it becomes 1).
In essence, as I have been expounding for years on the astrological ground, and attested by historical events documented on this site, the creative-destructive component of the pentagon is confirmed and concentrated in a unique way in the golden ratio between the two sides, where the minor section (convex side) is always the creative one, the golden section of the major one which is substitutive-regenerative (concave star-shaped side), from whatever perspective one considers them.
It means acknowledging the expansive-active value of Φ and the passive-enveloping value of φ which is its mirror and functional connection.
In this regard, I suggest comparing it with my own development of the vital principle of the golden spiral.

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ALGEBRAIC EXTRACTION OF REAL π © THE WATCH PUBLISHER 2026

« A black hole can spin so fast it threatens to tear spacetime apart; it shapes the cosmos and reveals a primordial universe more ordered than we ever suspected. (web news) »

Have we ever conceived of the golden spiral
as the vital counterpart of the circle,
the factor of containment and gravity
in a continuously expanding Universe?

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Pi-drawer, v.2 – DOI 10.5281/zenodo.21531530	
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ABSTRACT – enhanced 2nd edition

This new edition updates and replaces the previous one, not in terms of content, which remains unchanged, but to offer additional considerations that aid understanding, after the laborious effort of structuring the initial conception.
For some minor typographical corrections of the first edition, it is integrated here afresh; to be completed by significant accessory notions, with its own index, including the description of a manual calculation which, like a *historical nemesis* in reverse, certainly brings to the required degree of precision.
Back to the theorem, both the first one, and here its alternative way always defining the π as unknown, but instead of bringing the circle towards a square, starts from the square to obtain a circle of equal perimeter, are eventually replaced by the most stringent analysis that setting the π as a constant, releases the implicit proof in the Pi-drawer in the most direct and accessible way.
From the effect of that second perspective, new postulates emerge rich in implications, regarding the transition from the circle, which we now know is exerted by the golden ratio, to the golden spiral of any density or amplitude.
Having elaborated the deeper inferences of the Golden Section, and having discovered how the golden ratio pervades the nature of the circle, as its soul, we will see how it amplifies its manifestations through the true Golden Spiral, which punctuates the squaring of the circle itself with each rotation.
As I see it, the circle expresses a gravitational field, the golden spiral is the only vector capable of representing the circle in the expanding cosmic reality, even for a radius deriving from $\varphi^{\pm P/360°^n}$ with **P** at the limit $^{\pm}\infty$.
I will hopefully reserve an indicative space for this new research.

Golden or logarithmic spirals?

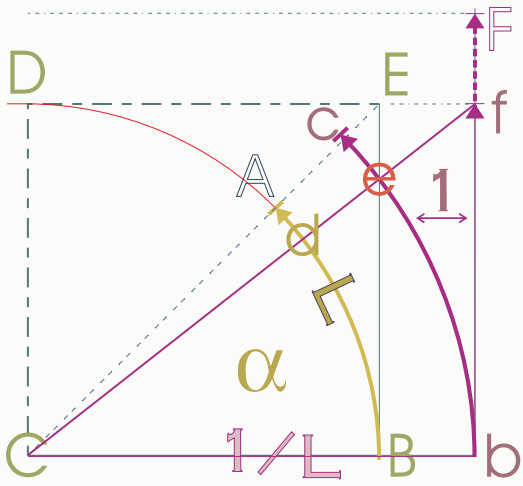
A golden pace with which logarithmic spirals have little to do, being merely an anonymous graphical appearance referring to a constant not present in nature and not absolutely definable, although very useful in mathematics.
They are superficially applied to animals and plants, with drawings that almost never match, unless they correspond to golden spirals like the ones I have documented; up to the silly claim on how to draw them with a ruler and compass, even on a computer, but this is an ordinary deception.

The figure of a spinning black hole conveys more clearly than ever the idea that the continuity of the golden principle is truly imperative, like an energetic lifeblood or breath, which cannot be segmented and dismembered like a gear mechanism, or replaced with misleading artifacts. I have advanced about that some serious arguments in my final study on spirals.

Corollary

Repeated meditation led me, in the first revision, to retrace the solution to the problem in reverse, reconstructing it in the belief that it should be possible to deduce and describe the linear way, not so much for demonstrative purposes, already thoroughly explored, but discursive, aimed at stimulating an investigation that with each new *access* reveals itself to be all the more complex and almost elusive, the more simple and almost obvious it appears.

A belief that pushes me to propose again, at a descriptive level, the benefit of a scheme entrusted to the figure like the internal motion of an alarm clock from which only one precise moment is expected, let's say more geometric than mathematical. In most cases, geometry better explains the interlacing of data to the mind, whereas the calculation itself tends to be configured in the brain as a numerical geometry.



Thence, given L, is it really that simple?

Ultimately, the circle~square ratio is reduced to that between ⅛ of the circumference ($\overset{\frown}{AB}$) and the radius-side; It is the most representative canon, both dividing 8 times the complete polygons they shape.

I said the segment Be can be equivalent to the length of $\overset{\frown}{AB}$ only when Ce is =1/L, since from that we will have $\overset{\frown}{cb} = 1$ and as $fb \div eB = \overset{\frown}{cb} \div \overset{\frown}{AB}$, i.e $fb = \overset{\frown}{cb} \times eB \div \overset{\frown}{AB}$ with $eB \div fb = CB \div Cb \,||\, L = fb \div Cb$, so it would be $fb = 1 = \overset{\frown}{cb}$ to match ad confirm the equality-link of Be with ¼π.

That's rather a sample of mentally challenging labyrinth, at least before it can be motivated in an algebraic synthesis; later, I'll try to break it down once for all and make it plainly accessible. However, it's as important right here to note that this isn't a self-demonstration at all, but properly the description of a construct of unquestionable preciseness, which takes shape and activates only when the key component is disclosed and applied, like the combination of a safe. In fact, beyond the scheme, it won't work assuming L= 3.1416 /4; but if a safe doesn't allow us to deduce its combination, our construction provides the parameters to calculate it.

From circle to spiral

In practice without wanting to, I just amplified the circle by multiplying its radius in a progressive golden sequence, from L [0.78615] to 1 to φ [1.618], which is reminiscent of the golden circles of the Divine Triangle, and that's what I have returned to.

This maneuver recalled the formula I set up to create the true golden spiral, whose radius of each point P is calculated with $R = \varphi^{\pm P/90°}$.

Following the development of this potential progress as that of a privileged golden form, I wanted to submit the exact layout of the Pi-drawer pattern to the interactive console I had built on the web (open JavaScript), to allow researchers to check online for the presence of any kind of golden spiral in their subjects.

Some preliminary reflections will aid to better interpret the dynamic circle-spiral interdependence.

Less explored premises

- Both forms indicate motion around a center, a principle of gravity and potential expansion, with some fundamental and complementary differences.
- The center of the circle is one end of its radius > 0,
  the center of the spiral is its first point with radius $= 0$.
- The circle is characterized and defined by a constant radius, with each point equidistant from the center.
  The spiral has no specific radius; each point has or represents a different radius, since no point on its path is as far from the center as another.
- Both have no beginning or end, but while the circle has a dimension, established by a radius, the spiral has no dimension, except that of its arc, and is always the same regardless of the scale factor.
- Just as three non-aligned points define a circle, we can observe that the subtending of an arc between two specific points with respect to a fixed center uniquely and exclusively defines a spiral, placing them as the three elements that distinguish it from any other.

They give rise to pure contraction and expansion; one can argue that reality is shaped by the combination of these two forces. These few notes introduce the potential interactivity between the two vital forms, which manifests itself everywhere in the universe, as I have shown, commensurate with the law of the Golden Section in the circle; and this is what I intend to highlight once again.

What else could have ever determined such a perfect and functional balance as that between a circumference and its radius?

I generated the exact image of the Pi-drawer_template in PostScript, making it available in svg format at 786.pt × 1000.pt, to make it manageable while maintaining its precision. In fact, it contains the 50% reduction of a basic square of 1000.pt, destined in the console for general practicality to the still halved size of 250.px. Thus it can be easily aligned for comparison with the golden spiral.

Panel executive details

My interest in spirals took shape with the writing (2021) of the essay «2x2=3.14». At that time, I had no other knowledge than the scholastic one, of a pseudo-spiral on a golden rectangular base.

At first glance, I couldn't help but question the hybrid composition (pages 10, 11), compelling myself to revisit the topic later, about which I knew nothing; nor did I find information that seriously filled a cognitive need.

Two or three years of study conducted in a dedicated subdomain have led in alternating steps from the inside of an article to this independent online control panel.

When loaded into the console, the total width of 786.pt is converted and proposed upon entry as ×96/72 (pixels / points) in 1048.px; But to maintain the initial aspect ratio of 500/1000, simply reject it and then set the width of 786.px from the desktop, which, halved for a base radius of 250.px, will be 393.px.

Note now that graphic pixels are integer units, that JavaScript's increased precision cannot compensate for, unless it is designed for a huge screen.

To facilitate greater magnification, I made the command buttons draggable further up, near the figure, which in any case helps me to convey the idea with reasonable reliability, since the numbers in the list remain interpretable indicators.

Once the width of the radius (virtually unitary) that identifies the point of the classical golden spiral has been established (with a modulus of 90°, i.e. r ×=φ at every ¼ turn, according to the formula I taught on page 3), the Rotation angle only serves to make it meet the unit circle at the base of the loaded arc; so, the calculations list reports the same angles and relative radii of the trace, i.e. internal to the spiral, regardless of its rotation in the graph.

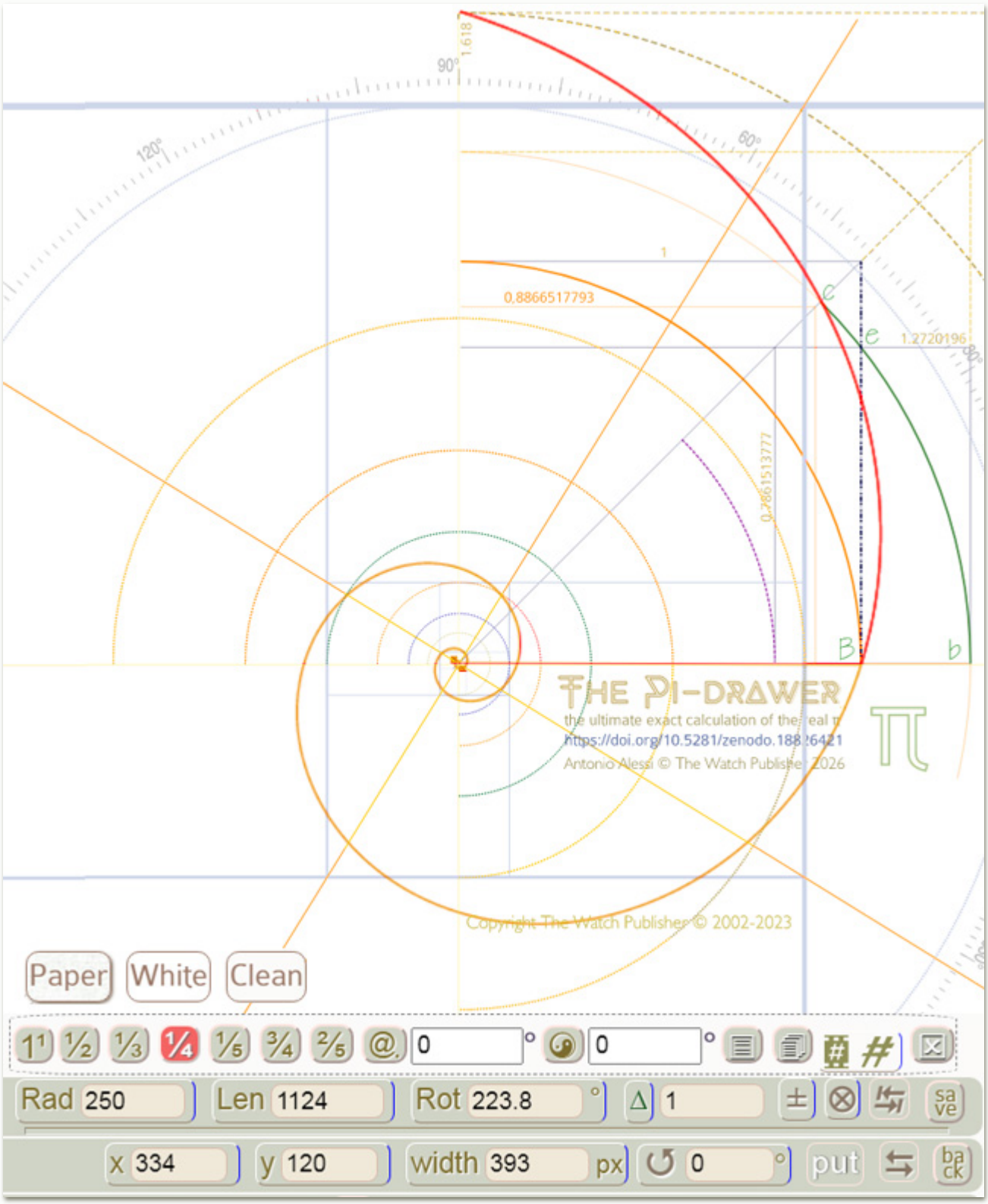
The spiral must be oriented from the center so that it meets the arc with its only point of equal radius; which here occurs in *B*, at the base of the dial.

In reality, by monitoring the numerical sequence produced by the spiral using the appropriate command 🗐, slight approximations are detected, so that even if the radius is set to 250.px with a Rot that aligns it to the base with fractions of degrees, the numerical sequence is produced by an algorithm that proceeds degree by degree, and reports '1033° radius: 250.44576549...', a deviation that is slightly visible on the display with a strong zoom.

As expected, continuing its course it will meet the diagonal of the square-quadrant at C, with a radius at 45° therefore of 250.px × $\sqrt{\varphi}$ = 318.0049...px, to then complete the 90° arc with ratio φ [1.618 × 250].

The console list currrently displays the following angles:

```
[0+°] 1033° radius: 250,44576549466393 [× 1,2720196495140 =]
[45°] 1078° radius: 318,5719348468051  [× 1,2720196495140 =]
[90°] 1123° radius: 405.22976090885186
```



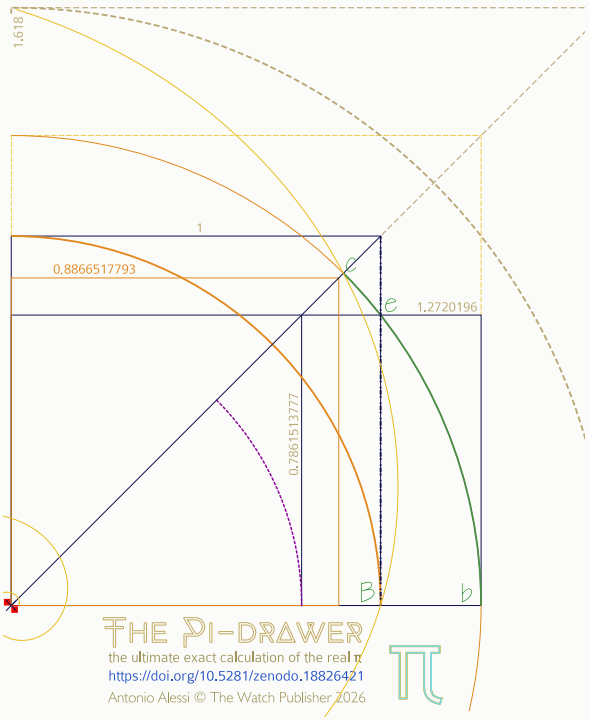
Virtually 3 radii of arcs in golden ratio which are schematized in this table:

	PHASE 1	PHASE 2	PHASE 3
RADII	1	1.272	1.618
45° ARCS	L	$L \times \sqrt{\varphi}$	$L \times \varphi$
SWITCH TO ARC 1	0.78615	1	1.27202
RADII	1	$1/L$	$1/L^2$

It is important to note that while the key to the divine proportion is $\Phi \div 1 \div \varphi$, as far as the circle is concerned it is the $\sqrt{\Phi}$ as $0.788615 \div 1 \div 1.27202$.
Since $\sqrt{\varphi} = 1/\sqrt{\Phi}$ or $1/_{0.78615}$, it is legitimate to deduce, dividing the arcs by 0.78615 in compliance with the golden ratio, that for an arc of phase 2 [$\overset{\frown}{cb}$] of amplitude = 1 the radius corresponds to $1/\llcorner$. confirming the expected intermediate value, which gives rise to the semi-arc $\overset{\frown}{cb}$, whose intersection e with the quadrant side will rectify the same arc $\llcorner$, marking the squaring of the circle as amply demonstrated.
Similarly, for the *rhythm* of increase from the radius $=1$, the next meeting point with the circle in progressive scale $1/\llcorner^2$ (partially indicated by the hatching) can only be at its upper point = $\varphi\,[1/\llcorner^2]$.

So far, we had examined in every aspect the geometric combinations between the arcs $\overset{\frown}{AB}$ and $\overset{\frown}{cb}$, the ratios between the radii and the intersections, but nothing that could connect the ends of the two concentric semi-arcs.
Only in this way have we discovered in the spiral's arc $\overset{\frown}{Bc}$ the special bond that connects these and all the other hemi-arcs in the golden ratio, revealing their measurement according to a progressive amplification.
The golden spiral from 0° to 45° extends the radius $=1$ bringing it to 1.272 for its arc $\overset{\frown}{cb} = 1$. If the radius 1 generates an arc $\llcorner$, a radius $= \varphi^{45/90}$ must generate an arc $\llcorner \times 1.272$, and as the ratio between the radii is $1 / 1.272 = 0.78615$, then $= 1/1.618 = 0.78615^2$ etc., the same will be between the arcs, suggesting that if the unit semi-arc is a reduction of the radius $=1$ to length 0.78615, the next radius will be precisely $1/\llcorner$ for a semi-arc $= 1$ and so on.

Do it yourself



Anyone who wants to experiment with the console, by loading this .svg image, once the center of the virtual circle has been aligned with the 0,0 point of the diagram, will be able to see the two sides, left and base, disappear.
This indicates accuracy, and is due to the need to maintain each uploaded image (at any size before being resized to fit the window) as the background for the diagram, the controls, and any subsequent spirals added. To ensure their placement, I added two adjacent red mini-squares in the left corner and below the base.

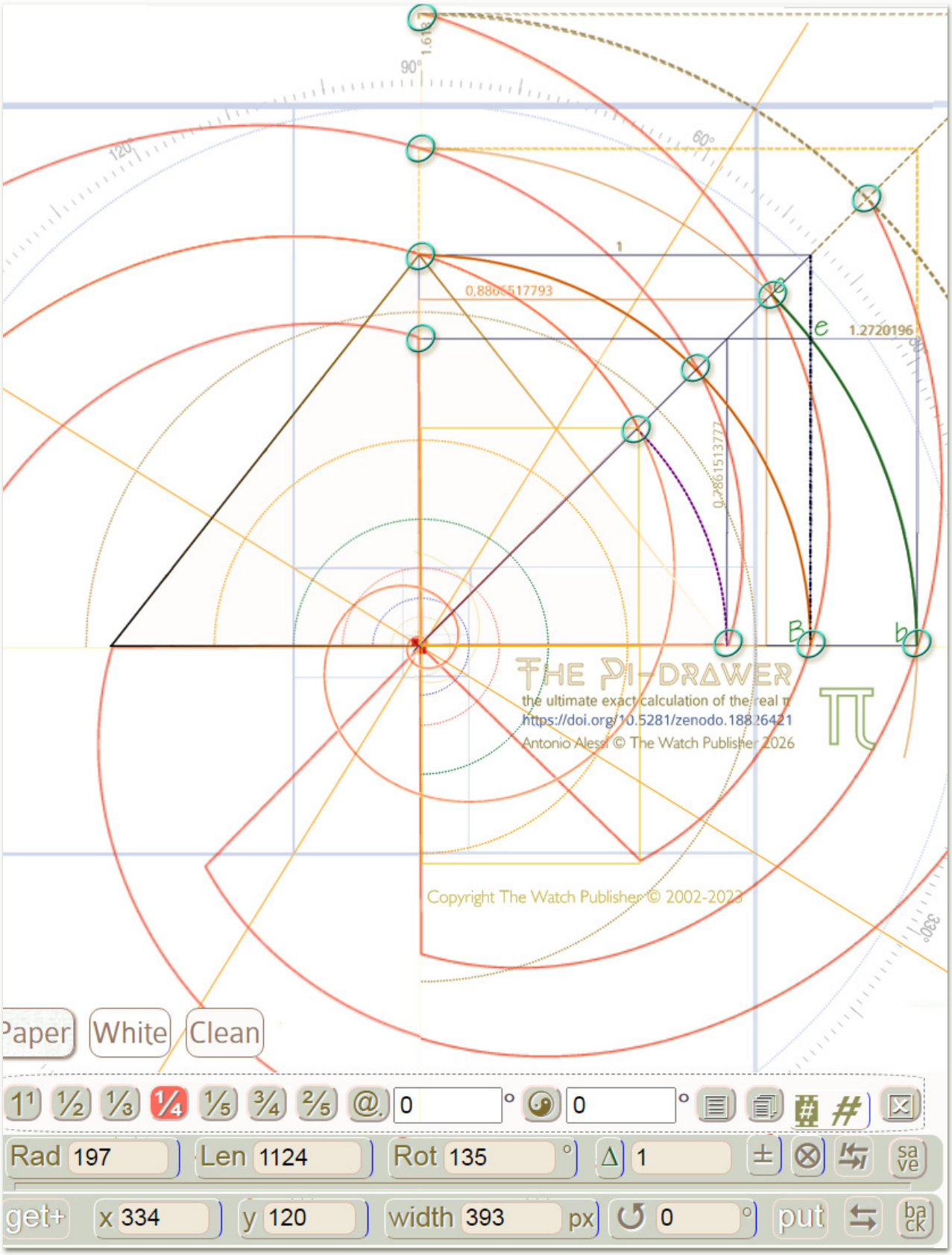
In fact, moving the outline by just one pixel will suffice to see the hidden lines reappear; which highlights the need to take into account the limit of points, converted to pixels (generally units of 0.35 mm, not to mention the operative differences in browsers); however, the rendering is satisfactory, and the console also offers a list of the calculation values performed degree by degree.

A further example is one that would see the arc of radius L being traced, in reduction L^2, with the relative circumscribed square which is the direct squaring of the unit circle! In this case, instead of a semi-arc =1 with respect to the basic one = L, we are looking for the arc of a radius = L [0.78615 ×250.px = 196.5378444.px]; (violet color) and the console measurement will be:

```
988° radius: 196.8882835971426
```

I wanted to superimpose on the base of the square with side L an exact scale copy of the section profile of the Great Pyramid deduced from the widely cited surveys of the UPUAUT project, so as to cover it with half the triangle base.
In this case, while the base perimeter of the pyramid will be 8L, its height will correspond to the radius of the unit circle, set by the arc $\overset{\frown}{AB}$, as well as by the golden spiral that meets its quarter at 45°, therefore with equal perimeter.
You can easily draw this once you have loaded the diagram as above, or launched it from the Gallery (see below for the 1st sample), by only updating the radius length [Rad] to 197.px and rotation [Rot] to 135°, visible in the desk.
Although some adjustments to the radius-rotation ratios would be necessary (equivalent angles may appear differently depending on the drawing order), given the HTML compromises, the spirals develop very well; observe how closely the repeated curve starting from 135° (very explanatory!), but also from 45°, marks the angular extremes and significant intersections of the arcs in the golden scale at every ⅛ of a circle.

The graphical response may vary depending on the browser, and even between repeated attempts; this console was intended for living objects, not for CAD.
This utility arose during the development of this web page. It was originally intended as a rudimentary tool for discovering and appreciating the efficiency of golden spirals not yet known or classified; whereas here it is loaded with high-precision calculations. Furthermore, although the π used in the script is the true 3.14460 for degrees and radians, the trigonometric functions of the language are based on 3.14159 and therefore sources of possible accumulation of discrepancies starting from the third decimal place, which inevitably add and multiply as the commands are repeated.
Note that although the console's background circles expand in golden ratio, they are not those of the triangle, their center being internal and same of its own.



Even though it is not a demonstration, which has already been given, it is undoubtedly a beautiful sight, an unmissable *plastic* representation of the total correspondence of the method, perhaps inspiring an even more in-depth research or theorem.

On closer look-see, the same spiral could have indicated the path towards the π, but it had not yet been discovered and commented on as it should be, and realized except with rare and laborious mathematical and geometric representations, without any further real development.

However, the spiral is not sufficient by itself; in my opinion the π could not be defined without the counterpoint of the Pi-drawer, which converts ∟ from the metaphysical circle to the physical square.

Nonetheless, I must say that several apparently secondary and subjective inferences in my analyses, especially in restricting the ratio π~radius to the window of the quadrants of the circle, are those that led to the final solution.

All this makes me think that the Pi-drawer did not arise entirely as an extraneous maneuver, but that it was somehow inherent in my research from the very first steps, given the latent property of the circle to manifest itself in the polygons that derive from it.

This last series of considerations, however extemporaneous and lacking in autonomy they may appear, are making the Pi-drawer a true, unique bridge connecting the circle and spiral functions.

Anyway, it is a salient map, since it leads with a special continuity an arc of radius =1 to an arc =1 and to the squaring of the circle in two directions: each expansion in ratio $1/\llcorner$, that is $\sqrt{\varphi}$ generates the circle equal to the starting square; each reduction in the ratio $1\times\llcorner$ that is $\sqrt{\Phi}$ generates the square equal to the starting circle.

Personally, I won't have any more time, but I believe that those who are prepared could continue to work on this in a positive way.

To demonstrate this last point, I have included it in the Gallery of twelve automated examples, where it can be selected from within, directly setting its position parameters, and then further manipulated.

Each spiral can be repeated and checked for any degree of Rotation, even *adjusting the shot* by 1° at a time, and the test can be cancelled to repeat it with the correct parameters, without losing the setup until the page refreshes (with FireFox even beyond).

Enabling ± also launches the entire initial part of the spiral.

THE SQUARING OF THE CIRCLE

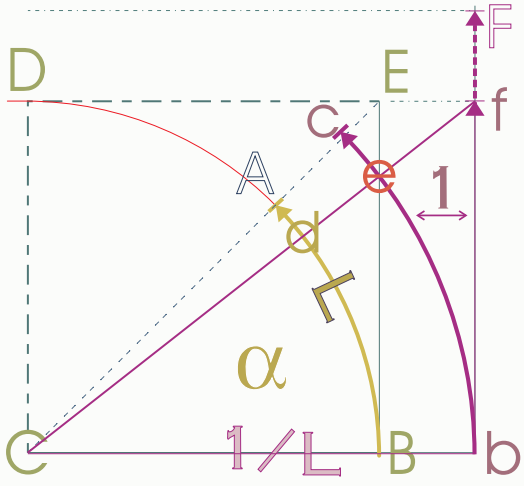
Although this exploration of π took inspiration from the taboo of Squaring the Circle – with my first treatise «2×2=3.14» in 2021, – I must confess that I found myself back there, almost surprised by its dominant presence, through the definition of π, just like a circle that closes, so much so that it re-proposes itself as the key to the solution.

In fact, even though I had glimpsed and mentioned it at the Pi-drawer's proposition, my mind concentrated above all on the 1 as a Unity, as a subject of comparison and specular verification, to the point of neglecting every aspect extraneous to the formation and function of the rectification ∟ of $\overset{\frown}{AB}$.

The evidence of the result stimulates the thought to retrace the pattern anew, curving the square into a circle, without contradicting my firm observations on the impossibility of reconstructing the metaphysical from the physical, since in this case one will not try to reconstruct the circle, in whole or in part, to simulate its shape with polygonal or other constructs, but rather to draw from the natural circle, whose only variable is the radius, without any need to dismember it or crush it with any kind of forcing.
It may seem like a very subtle distinction, but in the end, anyone interested in this epistemological aspect will agree that it is real and fundamental.

The Reverse Process

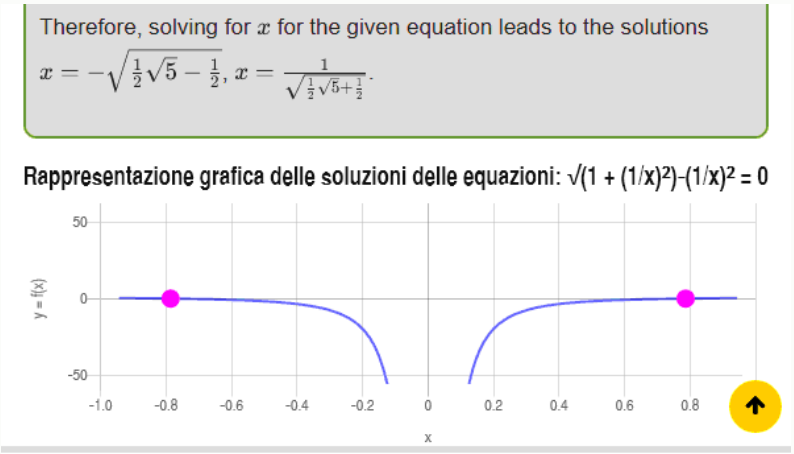
The process can be summarized in a few words: starting from the square, obtain the circle of equal perimeter, which is the means to get π, not the area.
To describe it, I will still refer to the single ¼ circle shot, considering the premises that compose it already known, without needing to illustrate the steps further. Although hypothetical, the figure can nevertheless be considered exact, as it is validated by accurate measurements down to hundredths, while it could not reproduce the thousandths of error at visible resolution.



1. The square CBED is circumscribed to the quadrant of the unit circle, and therefore to $\overset{\frown}{BD}$ that is ¼ of the circumference, whose semi-arc $\overset{\frown}{AB}$ has length represented by the unknown L, to which the value of ¼3.1416 = 0.785398 is supposed until proven wrong.
2. We want to obtain a new arc $\overset{\frown}{cb}$ of length equal to the side EB [1], which will thus constitute its quadrature module for ¼.
3. Conceptually it is easy: just enlarge the arc $\overset{\frown}{AB}$, long L with radius =1, up to a radius Cb of measure 1/L, thus delineating $\overset{\frown}{cb}$ = 1.
4. This arc will meet the side EB at a point e, such that Ce will be its radius of length 1/L. If in the first part I used this as a reference radius, for an arc conceived *from the inside,* (via Ce on eB with a linear equation), starting now from the *external* side Cb towards EB, the hypothetical and indicative definition of Cb always as a function of L, verifying Cf ÷ Ce = Ce ÷ Cd, as if to say Cf ÷ Ce = Cb ÷ CB, for which Cf = $1/L^2$, will take shape in the Pythagorean equation inverse to the previous one:

$$\sqrt{1/L^2 + 1} = 1/L^2$$

which naturally leads to the same result, even if the graphical trend is opposite. Whatever the construction of the Pi-drawer, in fact, that both the radii Cb and Ce result = 1/$\overset{\frown}{AB}$ always depends on the height of eB.



5. This condition will therefore only occur if eB is given the length of $\overset{\frown}{AB}$, i.e. ¼π real, in which case, since $\overset{\frown}{AB} \div \overset{\frown}{cb} = eB \div fb$, it will result in fb = 1 and the correspondence of f with the extension of DE, validating $\overset{\frown}{cb}$ = 1 and the functionality of the theorem and the device.
6. The overall connection is naturally achieved by the exact correspondence of eB to ⅛ of circumference, as the hinge L which will guarantee both the radii Ce and Cb the enlarged arc of length =1, in order to be able to configure the resolution equation that calculates its value.
   I know I'm repeating myself, but this is an exercise to be done mentally, to assimilate the power of the method.

Instead of starting from the initial attribution to L of the length of $\overset{\frown}{AB}$, around the square CBED which circumscribes the arc $\overset{\frown}{DB}$ and halves it in $\overset{\frown}{AB}$ with the diagonal, we have constructed a square cage with side Cb, which enlarges the whole by the ratio of 1/L.
The segment joining C to f at height =1 will have two precise characteristics:

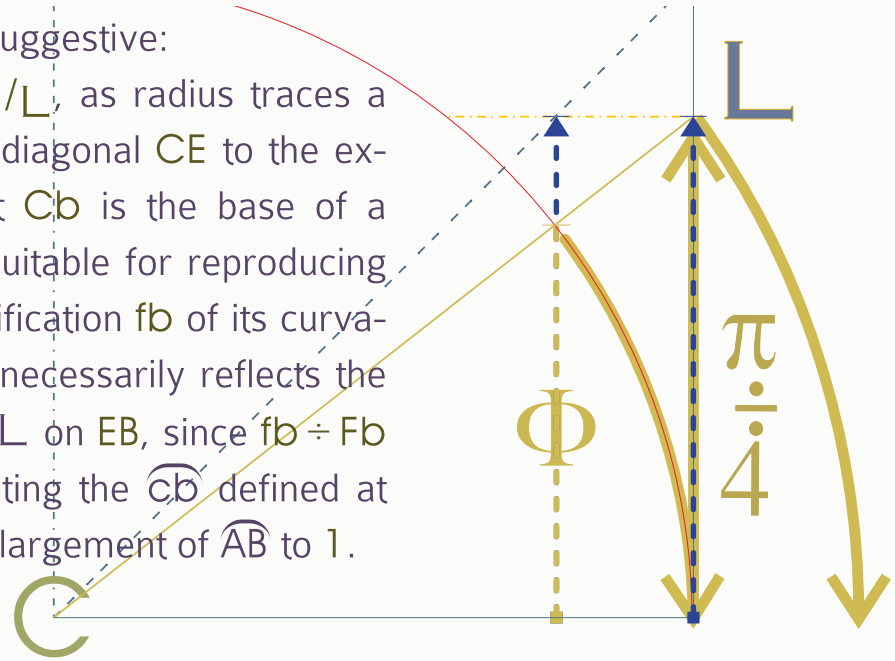
- intersects BE at the point e, for which we will implicitly have Be = L.
- The scale projection 1/L of $\overset{\frown}{AB}$ to $\overset{\frown}{cb}$ along the Cf axis will bring the arc $\overset{\frown}{dB}$ to $\overset{\frown}{eb}$, so Ce will be, like Cb, the radius =1/L of $\overset{\frown}{cb}$ =1.

Even in this new procedure, it is a question of finding the value L that satisfies the ratio between Ce and eB.

Now that we know what it is, we can grasp its dazzling logic: the radius 1 divided by the arc of ⅛ of the circumference becomes the radius of an arc equal to 1, whose quadrature is already present!
In other words, **the rectification of an arc [$\overset{\frown}{AB}$] ⅛ of a circle reproduced [Be] on its tangent [BE] marks with the extremity e the exact intersection** [and the radius from the center] **of a circumference having the same perimeter as the square circumscribed to the unit circle.**

It responds so completely to the squaring of the circle as to emerge implicit in its elementary parameters; even if I find no traces that lead to an equivalence of the areas of the circle and the square. Although I provide a template below, this could highlight that area is not a significant aspect of a geometric figure since it neither expresses nor defines it, something reserved for the perimeter; in fact, just as different perimeters can have the same area, the opposite is equally possible; but to calculate any area, you need perimeter details.
It follows that the search for the squaring of the circle should have been more properly oriented towards the polygonal profile, while it seems that the opposite has always been the case; another of the most practiced but misleading attempts, since the π, as the unique solution, transcendental or not, does not indicate area but distance. In any case, without having to depart from the golden mean, a circle of radius 0.5 has the same area L as a square with side $\sqrt{L}$; these are details that I have already highlighted for years.

To make it even more suggestive:
a hypotenuse Ce = 1/L, as radius traces a semi-arc $\overset{\frown}{cb}$ from the diagonal CE to the extension of CB, so that Cb is the base of a square to scale 1/L, suitable for reproducing on the side bF the rectification $\overset{\frown}{fb}$ of its curvature =1 in $\overset{\frown}{bc}$, which necessarily reflects the function performed by L on EB, since $\overset{\frown}{fb} \div Fb = \overset{\frown}{eB} \div EB$, thus repeating the $\overset{\frown}{cb}$ defined at once from Ce as an enlargement of $\overset{\frown}{AB}$ to 1.



Two valves of the same shell, which contains the most precious Pearl.

The Last Wonder

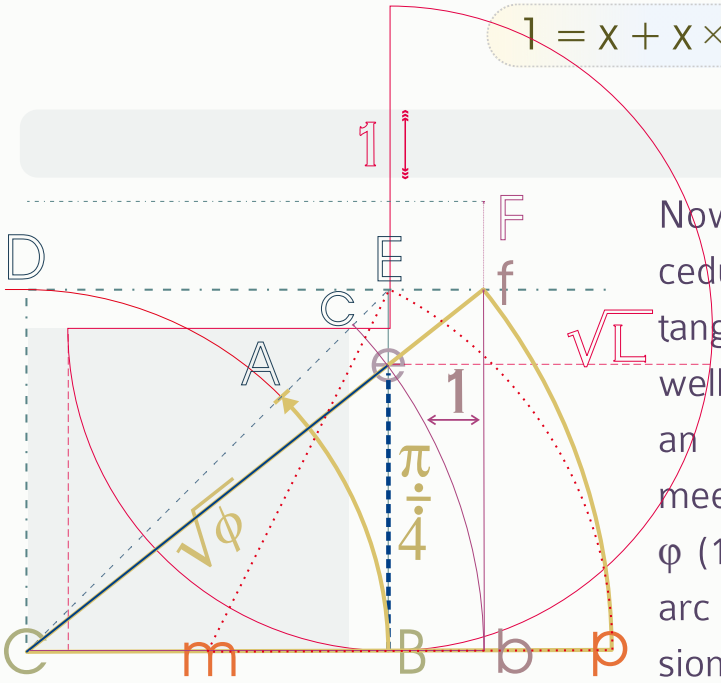
To conclude as I began, this area highlights one last wonder among the secrets of the circle: The sine of the angle formed by L is equal to the measure of its tangent squared: $\Phi \div L = \sqrt{\Phi} \div 1$, a tangent which, as the first external projection of the circle (but also internal as we will see), determines its perfect quadrature, even enhancing its descriptive profile. It can be said that carrying ⅛ of a unit circle to length =1 proved to be the winning combination.
From a different point of view, calculating the angle α whose tangent defined even a single point of the quadrature circle would not have been easy, or possible, if not through the perspective of ⅛, certainly the most commensurable to all the terms of the problem.

The radiance of the Golden Section

Having become more familiar with the divine proportion, we discover how everything stems from the fundamental process of balancing that characterizes it. A process whereby if in a rectilinear way it concerns the direct values Φ, 1 and φ, in the circular mode, which subtends a space, the squares of the same intervene, the radius 1 remaining unchanged.

As $eB^2 + 1 = 1/L^2$, then $eB^2 \times L^2 + L^2 = 1$, replacing eB with L will reproduce the formula of supreme symbolic strength, emphasized in the header of the "Cosmogony of the Golden Section" to represent the split of the Unity:

$$1 = x + x \times x$$



Straightedge and compass?

Now it's easy, since Cf = φ. The procedure for obtaining the golden rectangle $_{1|1.618}$ from the square CBED is well known: from the center m of CB, an arc with radius mE is drawn to meet the extension of CB at p. Cp is φ (1.618). Now for the Pi-drawer, an arc of radius Cp will reach the extension of DE at f, that is, at height 1.

It will be sufficient to join C to f to cut EB at the point e, which defines eB as a precise rectification of $\overset{\frown}{AB}$ = ¼π, the ideal unit of measurement, as well as of squaring the circumference of radius Ce with EB × 8. The red outlines build a red square with area π, (side $\sqrt{L}$) i.e. same as the basic circle's quadrant.

It follows that if the base side of a pyramid with height CB is ½π (Be × 2), its perimeter is 2π, or the same as a circle with radius CB!

As has been deliberately handed down since the dawn of time.

This should at least teach us that this rectification of the π had already been made.

The last resort

Nature does not reserve transcendental numbers; we could say that we invented them, for the convenience of our methodologies. They could be labeled as abstruse, if not absurd, since they cannot be calculated except with an approximation, that is, an estimate not mathematically connected to the use of rational or algebraic values, which cannot be expressed as fractions of whole numbers or as the result of any polynomial equation.

They are unresolved realities that cannot be defined in an absolute and universal way, whilst the π is an infallible Law of Creation, in which everything responds to a principle of harmony and balance in coordinated evolution.
I do not intend to enter into a centuries-old discussion on numeral typologies, which is alien to this context, but to underline that at least the π has no reason to fall into this range, it exists in its own right and is therefore completely exempt from such reduction, revealing instead its mathematical, geometric and physical presence, a unique potential whose wings had been clipped by the presumed transcendence.
If squared (¼π, my 'Platinum' monad) it generates the golden section Φ mathematical expression of the Deity, which, by dividing the 1, adds to it while, multiplied by itself and added to its product, recombines into the ONE, according to a precise definition and location in the numerical and vital world from which – not only for the present study – a metaphysical source.
It is the threshold of the mystery that gave shape to the Universal Consciousness, from which all reality and the existence of individual beings originate.

Even if the proposition of unrealities defined as transcendent, but only in a numerical sense for academic coherence, may support a humanoid intellect, they are not the fruit of Cosmic Intelligence, of which the π is without a shadow of a doubt the masterpiece, and which only the now historical impotence to advance within the circle had reduced to the level of half its shadow. So much so as to lead this deformation to the deplorable convention of calculating the circle as dependent on the diameter; a senseless flattening, which should be compensated for at the very least by a cross of cardinal axes, to restore its roundness and implicit omnidirectionality, and above all the due exclusive rank to the radius.

Can you imagine a radar screen that works based on a diameter? which is the opposite moment to any kind of spiral formation, life in evolving space-time? Yet it's a cliché, due to the forcing of a *π half circle*, almost as crude as attributing a spiral to Fibonacci, or worse, the entire golden ratio as if it had ever arisen from his sequence...

Assuming the scheme in which $\overset{\frown}{cb}$ of radius $Cb = 1/\llcorner$ has consequent length $=1$, being $Cf \div Ce = Cb \div CB$, we will have $Cf = 1/\llcorner^2$;
and since $eB \div fb = \overset{\frown}{AB} \div \overset{\frown}{cb}$, and always the value 1 being the pivot at said proportion, and for segments as for arcs, without needing much argumentation one could alternatively deduce that: $Ce = Cf \div Cb$, that is
$= 1/\llcorner^2 \div 1/\llcorner = 1/\llcorner$, setup clause that allowed us to extract the value of $\llcorner$ using our equation $\sqrt{\llcorner^2 + 1} = 1/\llcorner$

In this regard, I will expand on a final curiosity mentioned on page 9, which shows how easily it could have been calculated in the past four millennia, with the desired decimal precision.

Once the solution equation had been obtained, in fact, it would not even have been necessary to develop the quadratic calculation steps to resolve its complexity.
All that had to be done was to verify, by substituting it for the unknown, how much the already known hypothesis satisfied the equation, for example: even under the 22/7 of Upper Egypt (0.7857 the best trend) - for not to tell it to the Babylonians, who also knew the square root - it would have been enough, starting from 0.700000... to increase each decimal point like in a counter, from 0 to 9 up to the maximum unit that keeps it < 1, to obtain a result increasingly close to 1 in the equation, in practice bringing the length of the segment Be up to and not beyond the actual length of $\overset{\frown}{AB}$.
It is therefore not an approximation implicit in the type of calculation applied, but rather a correct one rounded only by cutting more decimal places, once sufficient precision for technical or scientific use has been reached.

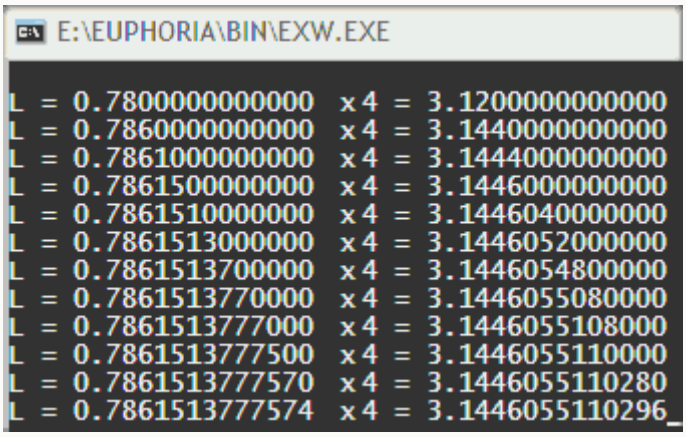
I will summarize an example taken from this simple calculation algorithm (code EUPHORIA), which I limit to the first 12 digits for obvious reasons of space (but anyone can carry on with...), whereas the Postscript offers 8; whilst some astrophysicists declare that 6 are sufficient, and in some ways that might be right.
In 1881, astronomer Simon Newcomb declared that

> « Ten decimals are sufficient to give the circumference of the earth to the fraction of an inch, and thirty decimals would give the circumference of the whole visible universe to a quantity imperceptible with the most powerful microscope.
> "Elements of Geometry" in 1881. »

Who knows if the fraction of an inch did not contain the the Pi disparity of 3.01 thousandths. The fact remains that 2 safe ones are only good for Pi Day!

Note that "algorithm" is not a term limited to computer science, but represents a behavioral model that describes how to organize the logical process of premises and actions that perform a more or less complex task in a coordinated, effective, and resolutive manner.
Therefore, what follows lists a series of computational operations that can also be performed manually; it indicates only the most concise sequence in our context.

```
--- ======
global object digit, L
    digit = 0.1  L = 0.7
```

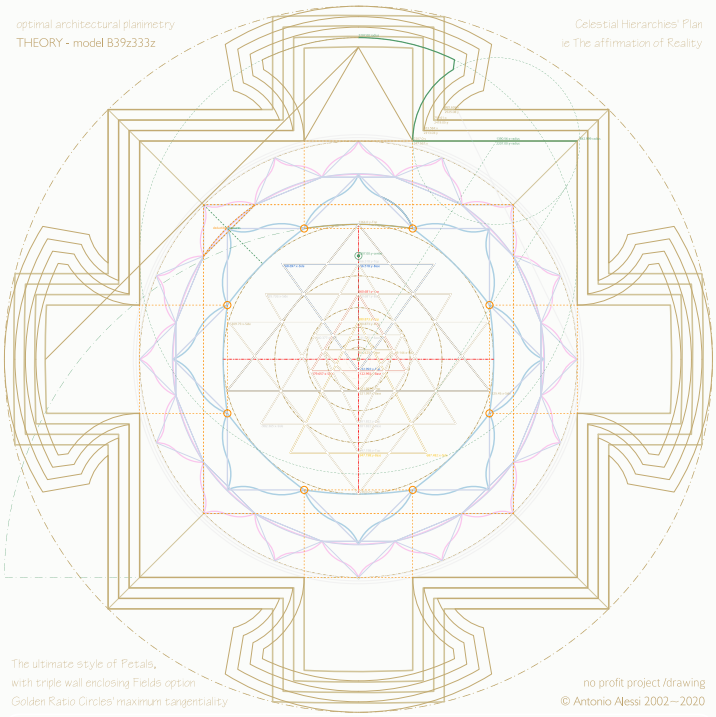



```
--- ======
function digitsteps ( object L )
    atom Platinum  integer count
        Platinum = L       count = 0
        while Platinum < 1 do
            count += 1
            L += digit
Platinum = sqrt( power(L, 2) +1 ) *L
        end while
    return ( L - digit )
end function
--- ====== love the digits?
-- L= 0.7861513777574232860695585858429589295231220578377232376649019 7
-- π = 3.1446055110296931442782343433718357180924882313508929506596078 8
for i =1 to 12 do
    digit *= 0.1
    L = digitsteps (L)
        [ ? L , L * 4]
end for
--- ======
```

COUNTERS		INCREMENT L	$L^2 \rightarrow \Phi$
0.010000000000	⇒ 02	L = 0.700000000000	
0.8707564584888	⇑ 1	0.71	0.5041
0.8872082957232	⇑ 2	0.72	0.5184
0.9038154734236	⇑ 3	0.73	0.5329
0.9205790351730	⇑ 4	0.74	0.5476
0.9375000000000	⇑ 5	0.75	0.5625
0.9545793628609	⇑ 6	0.76	0.5776
0.9718180951186	⇑ 7	0.77	0.5929
0.9892171450192	⇑ 8	0.78	0.6084
1.0067774381660	⇑ 9	-- OVER	
0.001000000000	⇒ 03	L = 0.780000000000	
0.9909659033090	⇑ 1	0.781	0.609961

0.9927162749628	⇑ 2	0.782	0.611524
0.9944682608917	⇑ 3	0.783	0.613089
0.9962218620046	⇑ 4	0.784	0.614656
0.9979770792082	⇑ 5	0.785	0.616225
0.9997339134070	⇑ 6	0.786	0.617796
1.0014923655031	⇑ 7	-- OVER	
0.0001000000000	⇒ 04	L = 0.786000000000	
0.9999096857963	⇑ 1	0.7861	0.61795321
1.0000854743656	⇑ 2	-- OVER	
0.0000100000000	⇒ 05	L = 0.786100000000	
0.9999272639251	⇑ 1	0.78611	0.6179689321
0.9999448422158	⇑ 2	0.78612	0.6179846544
0.9999624206682	⇑ 3	0.78613	0.6180003769
0.9999799992824	⇑ 4	0.78614	0.6180160996
0.9999975780584	⇑ 5	0.78615	0.6180318225
1.0000151569962	⇑ 6	-- OVER	
0.0000010000000	⇒ 06	L = 0.786150000000	
0.9999993359449	⇑ 1	0.786151	0.6180333948
1.00001938330	⇑ 2	-- OVER	

In the case in question, by the way, a single and defined constant must be targeted; not as I had to solve (and for the first time) the complete architecture (and without errors at any level of magnification) of the extraordinary Śrī Chakra yantra.
There it was a question of seeing triple concatenated intersections coincide in the same diagram, moreover not on the basis of a fixed parameter, but on the basis of a potentially unlimited range of schemes, predefined by subjective and variable settings, for which I had developed an application that I made available since 2010.


optimal architectural planimetry
THEORY - model B39z333z
Celestial Hierarchies' Plan
ie The affirmation of Reality
The ultimate style of Petals,
with triple wall enclosing Fields option
Golden Ratio Circles' maximum tangentiality
no profit project /drawing
© Antonio Alessi 2002—2020

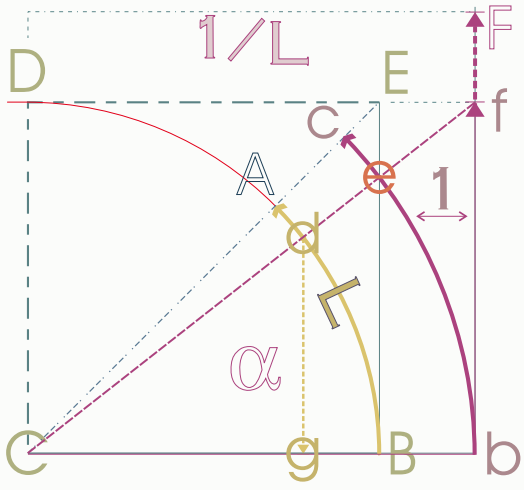
THEORY: Śrī Chakra yantra error-free completion
The golden circles encase the "Divine Triangle",
that is the profile of the Great Pyramid of Giza.

I reproduce it not only because it is a unique piece in the world for its golden completeness and resolution accuracy at any magnification, but to point out how, in the face of such unique and pre-eminent perfection, any calculations to mathematically solve its triangles – as if they were a somewhat pre-set puzzle, sometimes ...identified as the Śrī yantra – unlike the personalized compositional method, assisted by my software until the extreme setting of the computations to the decimal precision required by exact intersections, using general trigonometric formulations would be destined to never attain its cosmic capacity, due to a flawed π.

Dulcis in fundo?

I ranged and lavished myself in every perspective within my reach, in order to better formulate the incessant pressure of an embryonic intuition, forced to take shape along a rigorous path, yet lined with mirrored walls.
Whatever the estimated view, allow me one last *kaleidoscope spin,* distilled from so many argumentation, which should convince even the most *reluctant*.

- For an analysis-synthesis that leaves no room for the doubt of a circular argument (where one statement is used to prove another), even if in this case it is a matter of a convergence to be calculated and not of an existing presumption, I will not hesitate once again to penetrate its mystery; destined to reveal itself, as I feared and hoped, almost to subvert the difficulty of the entire work I have presented, with disconcerting transparency.



Let us retrace a scheme based on the relative certainty of 3.1416. The basic square-~quadrant CBED circumscribes the ¼ circle $\overset{\frown}{CBD}$, which contains the semi-arc $\overset{\frown}{AB}$ = ¼π, length we define as L, currently 0.785398 as the plausible minimum.
No matter how exact, the figure is to define a pattern whose logic is indisputable.

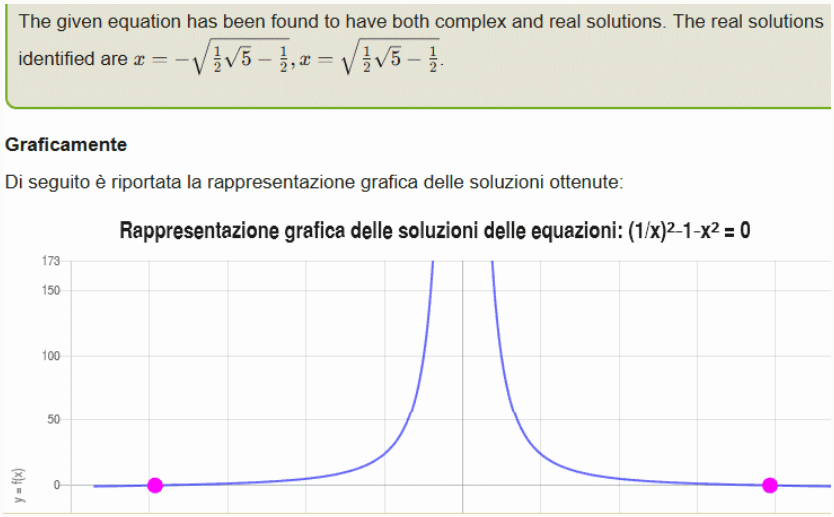
- From the center C of the virtual Cartesian system, the quadrant and its contents are enlarged by 1/L [1,27324] to a square with height bF and base Cb = 1/L, which will become the radius of an arc $\overset{\frown}{cb}$. The ratio of the radii Cb = CB ×1/L will evenly affect $\overset{\frown}{cb}$ = $\overset{\frown}{AB}$ ×1/L, which will thence have length =1, whatever the actual value of L.
- The horizontal extension of DE will define the point f on bF at height =1, so that bf represents the rectified length of $\overset{\frown}{cb}$, and f joined to C intersects BE at e. Since fb = $\overset{\frown}{cb}$ = 1, by the inverse proportion eB ÷ fb = $\overset{\frown}{AB}$ ÷ $\overset{\frown}{cb}$ will give eB = AB = L. This is the L = ¼π acknowledgement from the outside.

- At the same time, Cf also intersects the semi-arc $\overset{\frown}{cb}$ at the point **e**, which the formula tan(α) = sin(α) / cos(α) × radius confirms as $fb = eB / CB \times Cb$, from which $eB = fb \times CB / Cb = 1 \times 1 / {}^{1}/_{L} = L = \sin(\alpha)$. This is the recognition of sameness coming from within. to ensure the convergence of the two Pi-drawer sides: natural arc and its rectified enlargement, by the value of **L**

The perfect truthfulness of this diagram follows the length of **L** as ¼π real, or to say it better ⅛circumference in which case, rather than a proof, the scheme can be considered a linear description of irrefutable geometric facts.
The statements presented do not require proof; they are proofs themselves, naturally illustrating and relating to a specific condition.
Their purpose is to represent the arguments on the basis of which to calculate the key constant that makes them effective, if quite right or what it should be.

Having established the cardinal function of eB for both sides (arc and diagonal, i.e. curve and straight line), we can set the extremes for a direct computation, even bypassing the equations proposed up to now, with a formula that is now elementary (Pythagoras docet): $eB^2 = Ce^2 - CB^2$, i.e. $L^2 = 1/L^2 - 1$.

It is an equality that for anyone with even a minimal familiarity with the golden section, without any need for complex reckoning, is already eloquent to the naked eye due to its absolutely unique mathematical correspondence:


The given equation has been found to have both complex and real solutions. The real solutions identified are $x = -\sqrt{\frac{1}{2}\sqrt{5} - \frac{1}{2}}, x = \sqrt{\frac{1}{2}\sqrt{5} - \frac{1}{2}}$.
Graficamente
Di seguito è riportata la rappresentazione grafica delle soluzioni ottenute:
Rappresentazione grafica delle soluzioni delle equazioni: (1/x)²-1-x² = 0
173
150
100
50
0
y = f(x)

$L^2 = {}^{1}/_{0.618} - 1 = 1.618 - 1 = 0.618$, therefore $L = \sqrt{\Phi}$ – Q. E. D.

Nonetheless, anyone at any era, even without knowledge of polynomials and golden ratio, could have practiced the method described above, for a calculation by and by simplified to the point of not even requiring the use the square root, to verify an equation for which it is sufficient to repeat a division and multiply the unknown by itself to obtain the expected result.

The most valuable gift

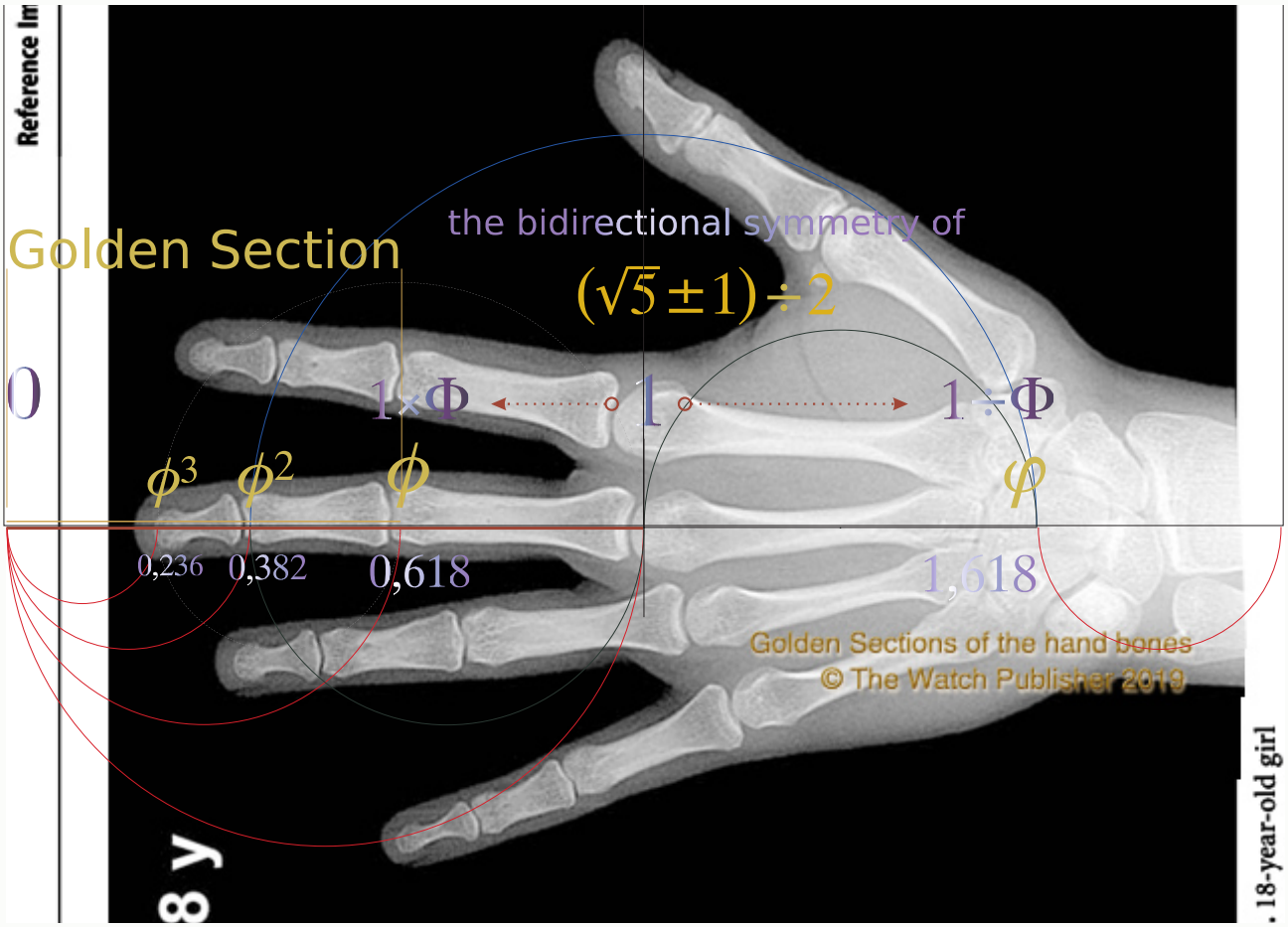
It deals with the greatest gift of the Golden Section to human knowledge: the secret core of the circle.This is π, proven matematically exact and undeniable. Accepting and adopting it is just a matter of time.

In its place, instead, π 3.14159 was obtained with spurious mathematics, and the proof lies precisely in the impossibility of defining it with certainty; a subject without a family, despite celebrating its birthday, justified only by the artificial label of transcendence.
After all, it wasn't that difficult; it was enough to enlarge a quadrant of a circle by ⅛ of circumference.

I should regret having asked so much of those who have patiently followed me up to this point; but if in truth it has taken more than four thousand years, and although it may be inconvenient for those tied to tradition, what I finally present is not a preference, politics or religion, it is pure mathematics, that is, truth that has always existed.

The Divine Proportion is in your hands, don't underestimate it!

The golden ratio is in your hands more than ever, whoever has understood this work should rightly make the best possible use of it.



The startup of this 2919 work of mine has been superseded by my subsequent research into the golden ratio with some advanced technical solutions; however its second part can always be culturally relevant.

Thank you for sharing! pi-day @ eye-of-revelation.org

Antonio Alessi © The Watch Publisher, 2003-26